

State of California

PROCEDURES

Required for Use of the

Diebold Election Systems

These procedures are proposed for adoption by the Secretary of State pursuant to Elections Code sections 19200 and 19205 and shall regulate and govern the use of Diebold Election Systems AccuVote-TSx (Touch Screen) Model R7 at all elections governed by the California Elections Code.

These procedures shall be effective upon approval by the Secretary of State and shall be used in conjunction with all other statutory and regulatory requirements. Insofar as feasible, all procedures prescribed herein shall be carried out in full view of the public.

These procedures constitute a minimum standard of performance. They are not intended to preclude additional steps being taken by individual election officials to enhance security and reliability of the electoral process.

Submitted

November 14, 2005

Table of Contents

| | |
|---|-----------|
| Table of Contents..... | 2 |
| 1.1. System description and components | 4 |
| 1.2 Terms and Definitions | 6 |
| 2. Ballot Definition | 16 |
| 2.1. Overview | 16 |
| 2.2. Paper and printing specifications | 16 |
| 2.3. Layout requirements and specifications | 16 |
| 3. System Installation and configuration | 17 |
| 3.1. Hardware requirements and specifications | 17 |
| 3.2. Hardware and network setup and configuration..... | 18 |
| 3.3. Acceptance Testing | 19 |
| 3.4. Software and firmware upgrades..... | 21 |
| 4. Election Setup and Definition | 22 |
| 4.1. Programming and configuration of election management system/software including audit records to be generated and retained | 22 |
| 4.2. Programming and configuration of vote recording/tabulation devices including audit records to be generated and retained | 22 |
| 4.3. System diagnostic testing procedures including audit records to be generated and retained | 23 |
| 4.4. System proofing | 24 |
| 4.5. Logic and accuracy testing of system and components | 25 |
| 4.6. Ballot tally programs | 30 |
| 4.7. Election Observer Panel | 30 |
| 4.8. Hardware maintenance and preparation for use..... | 31 |
| 5. Polling Place Procedures..... | 32 |
| 5.1. Precinct supplies, delivery and inspection | 32 |
| 5.2. Polling Place Setup | 33 |
| 5.3. Opening the polls | 34 |
| 5.4. Polling place procedures | 35 |
| 5.5. Special needs voters | 37 |
| 5.6. Provisional voters | 38 |
| 5.7. Closing the polls and vote reporting | 39 |
| 5.8. Securing audit logs and backup records | 42 |
| 5.9. Troubleshooting and problem resolution | 42 |
| 6. Absentee/Mail Ballot Procedures (central tabulation) | 47 |
| 6.1. System startup and pre-tabulation report procedures | 49 |
| 6.2. Tabulation procedures | 49 |
| 6.3. Post tabulation report and shutdown procedures | 49 |
| 7. Semi-Official Canvass Tabulation and Reporting | 51 |
| 7.1 System start-up and pre-tabulation reports | 51 |
| 7.2 Processing vote reports..... | 53 |

| | |
|---|---------------|
| 8. Official Canvass and Post-Election Procedures | 54 |
| 8.1. Election Observer Panel | 54 |
| 8.2. Canvassing precinct returns | 54 |
| 8.3. Canvassing Absentee returns | 55 |
| 8.4. Canvassing provisional ballots | 55 |
| 8.5. Canvassing write-in votes | 56 |
| 8.6. 1% Manual recount procedures | 57 |
| 8.7. Handling ballot exceptions | 57 |
| 8.8. Post election logic and accuracy testing | 58 |
| 8.9. Final reporting of official canvass | 59 |
| 8.10. Backup and Retention of election material..... | 59 |
| 9. Manual Recount procedures..... | 61 |
| 10. Security..... | 63 |
| 10.1. Physical security of system and components | 63 |
| 10.2. Logical security of system and components | 66 |
| 10.3. Security procedures for central processing | 68 |
| 10.4. Security procedures for polling place | 68 |
| 10.5. Audit trails | 69 |

Introduction

1.1. System description and components

This manual of USE procedures is for jurisdictions using the Diebold Election System as certified by the State of California. It is to be used in conjunction with the User guides distributed at the time of upgrade. Additional copies, if needed, may be obtained from Diebold. The system components are listed below:

- *GEMS Software Version 1.18.24*
- *AccuVote-TSX Ballot Station Version 4.6.4*
- *Key Card Tool Version 4.6.1*
- *Voter Card Encoder Version 1.3.2*
- *VC Programmer 4.6.1*
- *AccuVote-OS firmware version 1.96.6*
- *AccuVote-OS Central Count firmware version 2.0.12*
- *AccuFeed*

An overview of each component follows:

The GEMS 1.18.24 Election Management System is Microsoft Windows-based election management and tabulation software that allows complete control of the election process, from precinct/district set-up, to race definition, tabulation and reporting. With GEMS software you can combine the programming of absentee or mail ballots and create the ballot layout of the touch screen units all in one programming process. GEMS 1.18.24 software has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

Ballot Station Software firmware 4.6.4 is designed to run exclusively on the Diebold Election Systems, Inc. AccuVote-TSX touch screen voting device with the AccuView Printer Module. This software allows a voter to interact with the voting device by touching the unit's LCD/touch screen panel for the capture of their vote. The Ballot Station software 4.6.4 incorporates changes from previous releases to utilize the AccuView Printer Module.

The Key Card Tool 4.6.1 is a PC based software application designed to enhance the security provided by the AccuVote-TSX units used in an election. The Key Card Tool application, when used in conjunction with an external smart card reader device, allows the user to create a smart card encoded with user-defined security codes or keys. The Key Card may then be used to encode the security key values on the election's smart card reading equipment. These values can be changed per election by the user if needed. The Key Card Tool 4.6.1 version has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

The Voter Card Encoder 1.3.2 is a device designed to encode voter access cards for the purpose of activating ballots on the AccuVote-TSX units used in an election. The Voter Card Encoder is encoded with "Master" voter access cards created from the AccuVote-TSX Ballot Station database application. The Voter Card Encoder can be pre-programmed with up to eight different ballot styles. Poll workers then can encode voter access cards for each voter with the appropriate ballot style in their voting location. The Voter Card Encoder 1.3.2 has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

VCProgrammer 4.6.1 is a PC based application that, when used with an external smart card reading device, can be used to create voter access cards for use on AccuVote-TSX Ballot Station units configured for an election.

A file exported from the GEMS election database supplies the information required by the application to create voter access cards. When this file has been made available to VCPProgrammer, the application can be used to identify the precinct and party associated with the ballot to be copied onto a voter access card for a voter.

VCPProgrammer may optionally be configured to interface with a voter registration system during a live election. When configured this way, the application automatically identifies the precinct and party associated with the ballot to be copied onto a voter access card when voter information is updated in a file generated by the registration system and referenced by VCPProgrammer. The VCPProgrammer 4.6.1 has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

The AccuVote-OS Optical Scan (model D) with 1.96.6 firmware is a mark sense paper-based voting device. It offers a precinct count and absentee voting solution that can be configured as a stand-alone system in a polling environment. Each precinct count AccuVote-OS unit is loaded with a memory card programmed with ballot information for the corresponding polling location or precinct(s). The results of ballots scanned by the AccuVote-OS are tallied to the memory card, and these results are uploaded to the host computer at the close of election. The AccuVote-OS will accommodate three different size ballots, all 8 ½ X 11", 14", and 18" ballots in length. Ballots can be fed into each unit in any direction or orientation. Both sides of the ballots will be read and recorded at the same time. The AccuVote-OS also has the option of being programmed to reject any over-voted or under-voted races if required by the State. The AccuVote-OS (model D) with firmware version 1.96.6 has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

AccuVote-OS Central Count firmware 2.0.12 is a compact and, scaleable batch ballot processing solution employing the AccuVote-OS ballot counting device configured with a Central Count firmware, linked over a local area network connection to the GEMS election management server. Ballots scanned by the AccuVote-OS Central Count unit pass card id information to the GEMS server over the local network, the GEMS server then confirms the ballot identification, and returns a ballot mask to the AccuVote-OS Central Count device. Using the ballot mask, valid voting positions are uploaded for the ballot to GEMS.

AccuVote-OS Central Count is used for processing large volumes of mail ballots, such as absentee ballots. Since the ballot information as well as the tally files is stored on the GEMS server, Central Count does not limit the number of unique ballot styles processed in a single processing session. AccuVote-OS Central Count mode allows any ballot type to be fed into the AccuVote-OS without any presorting of ballots. All that is required is that the vote center in which ballots are counted is logically associated with all the election precincts to the vote center in the GEMS software database.

AccuVote-OS Central Count may be configured with multiple AccuVote-OS Central Count units linked to the GEMS server in either a local area network configuration or using Windows Remote Access Server (RAS).

The AccuVote-OS Optical Scan Central Count 2.0.12 has completed ITA testing under the 2002 Voting System Standards, and is included under the assigned NASED System Number of N-1-06-22-22-001.

The AccuFeed Ballot Feeder is a mechanical ballot feeding device which can be used with the AccuVote-OS. This hardware allows the operator to place stacks of ballots into the input stacker tray which then are fed into the AccuVote-OS optical scan unit. The AccuFeed ballot feeder does not tabulate or scan the ballot. The unit functions to feed the next ballot to the

AccuVote-OS unit. The AccuFeed ballot feeder is placed on top of the AccuVote-OS in the Central Count configuration and the ballot feed function is controlled by the AccuVote-OS via a single optical coupler.

1.2 Terms and Definitions

This section contains a comprehensive glossary of terms used with the AccuVote-TSx, the AccuVote-TSx firmware, and related functions in GEMS, in alphabetical order.

“Absentee Voter”

A voter who votes at a location other than their polling place by means of paper ballot, or by means of an electronic ballot at a satellite location.

“AccuVote Server”

The console window used in GEMS for programming AccuVote-TSx election media and uploading election results.

“AccuVote-OS”

The unit consists of an optical scanner hardware and software that accepts and tallies votes, prints reports, and rejects votes based on specified conditions (e.g., overvotes, blank voted ballots)

“AccuVote-TSx”

The unit consists of hardware and software for the electronic ballot station functions, such as proper ballot selection, detecting and recording voter choices, printing of reports, etc.

“Accessible Voter Verifiable Printed Audit Trail (AVVPAT)”

The Accessible Voter Verifiable Paper Audit Trail refers to the AccuView Printer Module's (AVPM) printed summation of a voter's choices that the voter verifies against the electronic ballot.

“Administrator Card”

A special smart card programmed to allow complete access to all functions on the AccuVote-TSx ballot station. It is NOT intended for poll worker use and is NOT needed for closing the polls and initiating the printing of results.

“Administration Screen”

The various functions of the administrative window on the AccuVote-TSx designed only to be accessed at specified points in the election process. Functions on this screen include: Start Election, End Election, Transfer Polling Data, Exit Administrative State, and Shutdown System.

“Archive”

Election and election results files preserved for back-up or election recovery purposes.

“Archiving of Election Data”

Once the transport media results have been entered on the host, the removable disk is archived. Verification of tabulations can be re-created by comparing records from

the fixed storage on the AccuVote-TSx with the results from the transport storage on the disks.

“Audio Ballot”

The ballot composed in audio format, containing identical race and candidate content and ordering as the corresponding visual ballot, and including operational instructions for the selection of candidates and ballot measures, traversing the race list, definition of write-in candidates, and printing and casting of ballots.

“Audit Log”

An audit record of all audit transactions on the AccuVote-TSx. The audit log provides the supporting documentation for verifying the correctness of the reported results. The audit function is automatic and encrypted and presents a record of all system activity.

“AccuView Printer Module (AVPM)”

The AccuView Printer Module (AVPM) that attaches to the AccuVote-TSx unit for printing the Accessible Voter Verifiable Paper Audit Trail (AVVPAT).

“Backup Flash Memory”

The internal “flash” memory storage location on the AccuVote-TSx, where elections and election results are stored.

“Ballot”

A ballot refers to a rotated ballot style.

“Ballot Id”

A unique identifier number assigned to the ballot.

“Ballot Serial Number”

A unique serial number identifying a voted AccuVote-TSx ballot.

“Base Precinct”

Any largest area of a jurisdiction not intersected by district boundaries.

“Ballots Cast”

The total number of ballots cast on either an individual AccuVote-TSx or at a polling location, or on the GEMS host accumulation/reporting system.

“Ballot Station Software”

A single integrated software program residing on the AccuVote-TSx motherboard that displays, processes, reports, and transfers electronic ballot information.

“Blank Voted”

A ballot with no voter selections in any race, question, or issue

“Button”

An object on the GEMS or the AccuVote-TSx user interface which is touched in order to activate a function.

“Candidate”

An individual running for office, for whom voters have the opportunity to vote on a ballot.

“Cast Ballot Button”

Button that is touched when the voter wishes to cast their ballot after all desired selections have been made and verified on the AVPM..

“Challenge Board”

The function used to review challenged ballots.

“Challenged or Provisional Ballot”

A ballot corresponding to a voter whose right to vote at a polling location has been challenged or a voter who insists that they be allowed to vote at the polling place in question. Challenged or provisional ballots are reviewed by jurisdiction administration prior to being released for counting or rejection.

“Copy”

The number of times a memory card or election media has been programmed without ballot layout having changed.

“Count”

A field display on the AccuVote-TSx to indicate either the number of ballots counted in the current election, or the total number of ballots counted since the manufacture of the AccuVote-TSx. The first is an Election Count and the second count is a System Count.

“Current Candidate”

The candidate currently selected on either the visual or audio ballot.

“Current Race”

The race containing the current candidate or ballot measure.

“Central Tabulating System”

Also referred to as GEMS. The computer system that reads the votes from the AccuVote-TSx removable media, and tabulates the votes from all AccuVote-TSx ballot stations and all polling places (either satellite, central or precinct locations).

“Closed Primary”

An optional ballot criterion for conducting primary elections in which voters affiliated with a particular party may vote only for that party’s candidates.

“Contest”

The aggregate of candidates who run against each other for a particular office , or ballot measures.

“Dynamic Host Configuration Protocol (DHCP)”

Dynamic Host Configuration Protocol (DHCP) is a network protocol that enables a DHCP server to automatically assign an IP address to an individual computer’s

TCP/IP software. DHCP assigns a number dynamically from a defined range of numbers (i.e., a scope) configured for DNS servers or WINS servers.

“Download”

The programming of election and ballot information onto the removable storage media for the AccuVote-TSx.

“Election Counter”

The total number of ballots cast on an AccuVote-TSx during a specific election. Also known as the Public Counter.

“Election Name”

The name of the election programmed to election media.

“Electronic Ballot”

The electronic ballot is displayed with the appropriate candidates and issues presented on a touch screen for the voter to make choices and record his/her votes.

“Global Election Management System (GEMS)”

The backbone of the election system that provides the functionality for ballot definition and layout, the downloading and uploading of memory cards and the tabulation and reporting of votes. Also known as GEMS.

“Header”

Text information that appears on the ballot identifying the race title, question and issue description, as well as the number of selections available to the voter for the race.

“Hide Ballot”

The visually impaired ballot station option to hide the visual portion of the ballot as the audio ballot is played. This option is programmed to the voter smart card.

“High Contrast”

Ability to change AccuVote-TSx presentation to black and white for low vision voters.

“Host Computer”

The GEMS computer, interfacing with GEMS clients and voting devices.

“Host Name”

The name or IP address of the GEMS host computer.

“Key Card”

The ‘Key Card’, created using the Key Card Tool, that can be used to encode the security key values on the election’s smart card reading equipment.

“Key Card Tool”

The Key Card Tool, a stand-alone application, that allows the user to create a smart card encoded with user-defined security codes or *keys*, and is also used to encode supervisor-type smart cards with the election’s security key. The Key Card Tool is also used to update the card’s supervisor password.

“Keypad”

A telephone-style keypad used to enter commands in the audio ballot.

“Language”

A ballot display selection available on the AccuVote-TSx, which allows the voter to select a ballot in the language of their choice, (e.g. English, Spanish, Chinese, Japanese, Vietnamese, Tagalog, Korean, and French). These are languages that have been used on the AccuVote-TSx. Languages are defined in the GEMS ballot layout software application.

“Large Text”

The ability to increase the size of ballot text for the benefit of visually impaired voters.

“Last Oval or First Oval Deck”

A test deck used in an optical scan election. This consists of a single ballot card per precinct with either the first candidate or the last candidate in a race marked for each race. This deck or card is specific to a precinct and is run thru the corresponding precinct memory card. The purpose of this test is to check that the precinct IDs and ovals on the ballot match the expected data format of the precinct memory card for the precinct optical scanner or central count optical scanner. This test is used to populate a count into each precinct to ensure database version control has been maintained, that all precincts and memory cards match the GEMS database, and that data is accurately flowing between the precinct or central count scanners and the GEMS host system. This test and test deck are not sufficient as a total test and must be used in conjunction with the Logic and Accuracy test decks (LA5, LAn, or LAmx).

“Logic and Accuracy Deck (5 or n or max)”

A test deck comprised of optical scan ballots that is used to test the logic of a precinct memory device in the AccuVote-OS or an absentee precinct using an AccuVote-OS device in central count. Mode. This deck can be ordered to give a 1,2,3,4,5 pattern to candidates in a race. For example, if there are seven candidates and a write-in – eight ovals in the race – an LA5 deck would give a 1,2,3,4,5,1,2,3 pattern. This deck can be ordered with any N number of the pattern. Or this deck can be ordered as an “LA max” deck. In this case, the largest number of candidates on the ballot will define the “maximum” number of the pattern. If there are 15 candidates, then the deck would consist of 1 ballot for the 1st candidate, 2 ballots for the 2nd candidate, etc., up to the 15th candidate, which would have 15 ballots voted for the last candidate. This deck would have a total of 120 ballots. As the county determines that decks are getting too large, they may use an LA5 deck to simply assign a 1,2,3,4,5,1,2,3,4,5,1,2,3,4,5 pattern to large candidate races.

“Memory Card”

A solid state memory device utilizing industry standards for data storage of election and ballot information. It is a removable electronic media containing the election definition for both the AccuVote-OS and AccuVote-TSx. The PCMCIA card also is used to accumulate and tally election results. Also known as PCMCIA card or “PC Card.”

“Machine ID”

An AccuVote-TSx unit is given a software tracking number or “Machine ID” during the initial start-up of the AccuVote-TSx in order to track election results by machine ID at a polling location. This is not the same as the unit serial number.

“Number to Vote For”

The number of candidates, responses or parties that a voter may select in a race without incurring an overvote.

“One Click Vote”

The ability to make an alternative selection on the ballot on the AccuVote-TSx without having to click twice in order to disable an existing selection.

“Official Election Mode”

Official Election Mode is the operating mode in which the official election occurs. This application mode differs from “test mode”, where all administrative functions take place such as machine settings, testing, and diagnostics.

“Overvote”

The condition of voting for more candidates or selections than a race allows. The AccuVote-TSx does not allow a voter to vote for more than the “Vote For” limit of selections.

“Party”

The political party affiliation of candidates for federal, state and central committee offices.

“Password”

An authentication of the user’s access to the network.

“PC Card”

Known as PCMCIA card or memory card. See “Memory Card”

“PCMCIA Card”

Known as “PC Card” or “Memory Card”. See “Memory Card”

“Phone”

The telephone number used for modem transmission.

“Poll Worker Card”

A special smart card programmed with the ability to put the AccuVote-TSx into voter card creation mode or to close the polls and generate totals reports. Also known as “Supervisor Card.”

“Power”

Power status indicator; defined as either charging (yellow bar on screen) or AC off line which means the AccuVote-TSx is operating off the battery. The AC off-line indicator is a red bar that shows the remaining percentage of battery charge available.

“Precinct”

The smallest division of the electorate within a county, city, or district identified by geographic boundaries defined by the local election official. The precinct is expressed either as a base precinct, a geographical unit in which voters vote, or a report precinct, to which election results are reported.

“Programming Election Media”

The act of transferring election and ballot information to election media.

“Protocol”

A set of parameters governing the communication and transfer of information between the host computer and the AccuVote-TSx unit.

“Protection of Results Data”

All results data is protected using standard data encryption methods and by system design functionality. The encryption process makes information indecipherable to protect it from unauthorized viewing, tampering or use.

“Protective Counter”

The total count of all ballots cast on the AccuVote-TSx since the manufacture of the AccuVote-TSx unit. Also known as “System Counter.”

“Provisional Voter Ballot”

Pursuant to Elections Code section 14310, a ballot given to a voter claiming to be properly registered, but whose qualification or entitlement to vote cannot be immediately established upon examination of the index of registration for the precinct or upon examination of the records on file with the county elections official, which includes the list of absent voters.

“Public Counter”

The total number of ballots cast on an AccuVote-TSx during a specific election. Also known as the Election Counter.

“Removable Storage Media”

The external media which stores election, audit and ballot information programmed for the AccuVote-TSx, and to which election results are tallied once ballots are counted. Also referred to as the Memory Card, PCMCIA card or PC card.

“Recount”

The configuration of an election for recounting one or more races, involving programming selected memory cards and uploading and reporting results for a recount reporting set.

“Report Precinct”

The results of ballots counted in base precincts are tallied to report precincts.

“Rotation”

The candidate rotation rule determines the order candidates are to appear on ballots in a particular geographic area.

“Running State”

In the running, or “Set for Election” state, no modifications are allowed to the election definition. In this state, the removable media is prepared for distribution to the AccuVote-TSx.

“Semi-Official Canvass”

The process of collecting, processing, and tallying ballots and, for statewide elections, reporting results to the Secretary of State on election night. The semi-official canvass may include some or all of the absentee vote totals. The semi-official canvass is contrasted with the official canvass which begins not later than the first Thursday following the election, and for statewide elections must result in final certification 28 days following the election (Elections Code section 15372)

“Serial Number”

The AccuVote-TSx serial number can be found on a label on the external surface of the AccuVote-TSx. This is different from the Machine ID, which is used by the software application.

“Scale %”

The scaling value applied to the AccuVote-TSx image; programmed in GEMS.

“Scale”

The increasing or decreasing of an image from nominal size.

“Straight Party”

A party selected in a straight party or endorsement race which automatically counts candidates endorsed by the party in all straight party-voted races, subject to the straight party tally rule defined for the election. *Straight party voting is not allowed in California.*

“Supervisor Card”

A special smart card programmed with the ability to put the AccuVote-TSx into voter card creation mode or to close the polls and generate totals reports. Also known as “Poll Worker Card”.

“System Total”

The number of ballots cast on the AccuVote-TSx unit since the date of the manufacture of the AccuVote-TSx. It is also referred to as the “Protective Counter”.

“Set-up Diagnostics”

A system test of the software and hardware of the AccuVote-TSx prior to entering ballot logic.

“Smart Card Authentication”

The process by which a Smart Card is inserted into the AccuVote-TSx and parameters verified for the functions being requested. These range from access security to election security to administrative security functions.

“Source Code”

The version of a computer program in which the programmer’s original programming statements are expressed in a source language, which must be compiled, assembled

and linked into equivalent machine executable object code, thereby resulting in an executable software program.

“TS Text”

Sets of files residing in GEMS, containing multi-language operational instructions which are programmed to the AccuVote-TSx.

“Type or Network Type”

Type refers to the type of network connection used for transmission; for example, ‘Local Area Network’ if the computer is networked to a hub.

“Undervoted Race”

A race with fewer candidates selected than the number to vote for; cannot occur in a vote-for-one race.

“Unit”

The designated machine number in the Vote Center.

“Upload”

The process of transferring election results from AccuVote-TSx units to the GEMS host computer.

“User Name”

The network user Id.

“Version”

The vote center/machine ID download version.

“Visually Impaired Ballot Station (VIBS)”

Visually Impaired Ballot Station (VIBS), an AccuVote-TSx plug-in feature that allows ballots to be voted and cast in audio format.

“Visual Ballot”

The ballot displayed on the touch screen, either when voting a non-VIBS ballot, or when voting a VIBS ballot without the ballot display hidden.

“Vote Center”

A physical polling location, containing one or more voting devices.

“Voted Ballot”

A ballot which has been marked by the voter.

“Votes Cast”

The number of votes cast in a tally, distinct from the number of ballots cast.

“Voting Device”

A Diebold Election Systems ballot counting device; either an AccuVote-OS or AccuVote-TSx.

“Voting Mark”

The mark on a ballot created by the voter's selection of preferred candidate or measures.

"Voter Access Card"

This card indicates the appropriate ballot to present to the voter and permits an eligible voter to cast a ballot on the AccuVote-TSx. The card will not allow multiple voting or any access to the election management system. Also referred to as a voter "Smart Card".

"Voter Exit Screen"

The Voter Exit Screen prompts the voter to remove the card from the card reader. When the card is removed, the system returns to the Open Polling Place State.

"Voter Instruction Screen"

The Voter Instruction screen presents the voter with a simple set of instructions for making voter selections and recording the ballot. It appears after the voter inserts the access card.

"Write-In"

Upon choosing the write-in option on the AccuVote-TSx, which allows a voter to select a person whose name does not appear on the ballot, the voter is presented a screen that allows him/her to spell out the name of their candidate by touching the appropriate letters. When the voter touches the Record Write-In button, the name written in appears on the screen showing the applicable contest. The name written in will also appear on the Summary Screen and the VVPAT.

Additional definitions may be found in the various User and reference guides that are listed in the appendix

2. Ballot Definition

2.1. Overview

The GEMS ballot layout software is a fully integrated software package. This integrated software is a single program of code that provides for importing of sub-precinct and consolidated precinct information as well as race, candidate and question information from the Election Management system. Information may be entered manually as well. It then is able to lay out the ballot using a fully Windows compliant graphical user interface.

The GEMS system generates the ballots automatically taking the user defined specifics, ie., rotation, font size, ballot definitions and applying them with the touch of a button. Ballots may then be viewed on screen and changed as needed. The many Administrative reports available offer the tools needed for proofing and may be viewed on screen or printed.

2.2. Paper and printing specifications

Ballots printed for the Diebold System must conform to unique specifications. These specifications are outlined in detail in the Ballot Specifications Revision document and as such will be referenced here. They include specifications for paper weight, color, ink and many other items. California EC 13002 specifies that ballots shall be tinted and watermarked or overprinted with a design, to be furnished by the Secretary of State, so that the watermark or overprint shall be plainly discernible.

2.3. Layout requirements and specifications

The Diebold system is able to create and tabulate 11inch, 14 inch or 18 inch paper ballots, portrait or landscape, in a variety of different configurations. GEMS also accommodates the additional languages currently required by law on the paper ballot and is able to have audio ballots in those languages as well. Rotations that are required by California law are easy to select for those races that require them and are easy to rotate.

Ballot layout for the AccuVote-TSx does not require duplicate data entry but uses the information input for the paper ballots and adjusts it for the touchscreen ballots. Once created ballots may be modified on screen and the information downloaded easily to the TSx or OS units to proof.

Detailed layout for ballots may be found in Section 4.6 of the Election Administrator's Guide. Section 6 *Managing Ballot Artwork* in the *GEMS 1.18 User's Guide* includes procedures detailing the creation of ballot artwork in GEMS. Section 6 *Managing Ballot Artwork* in the *GEMS 1.18 Reference Guide* describes the concepts behind the creation of ballot artwork in GEMS.

California EC Div 13, Chapter 3 (13200-13289) contains specific legal requirements for ballots.

3. System Installation and configuration

3.1. Hardware requirements and specifications

The GEMS host computer is used to run the GEMS software, and is configured by Diebold Election Systems, Inc. according one of three possible sizes, Small, Medium, or Large. As the names suggest, Small configurations are issued to smaller jurisdictions with less processing requirements, Medium configurations are issued to medium sized jurisdictions, and so on. The GEMS server may run Windows NT, Windows 2000, or Windows XP.

Examples of each are below:

Small

1. Dell Power Edge 500 SC Pentium III 1.13 GHz
2. 1 GB SDRAM, 4x266MB DIMMS
3. 20 GB 7.2 KRPM IDE Hard disk
4. Onboard Network Interface Connector
5. Video card capable of 1024x768 resolution
6. Internal Tape Backup Unit, 20/40 GB
7. 48X CD-ROM (for software installation)
8. Standard Windows Keyboard
9. 3.5" 1.44 MB floppy drive
10. Mouse
11. Monitor compatible with video card (minimum 17" min.)
12. Laser Printer
13. Additional hardware required to support modem transfers—Modem (must be compatible with Microsoft Windows NT and have a minimum speed of 9600 baud).
14. Postscript printer
15. Multi-port serial port for the necessary number of ports (Digiboard), or an Ethernet card and terminal server
16. Un-interruptible Power Supply

Medium

1. Dell Power Edge 2500 Pentium III 1.13 GHz
2. 1 GB SDRAM, 133 MHz, 4x266MB DIMMS
3. 3 x 18 GB 10 KRPM Ultra 160 SCSI Hard disk
4. PERC3, DC, 128MB hard drive controller, 1 internal and 1 internal channel
5. Intel Pro 100S Onboard Network Interface Connector
6. Video card capable of 1024x768 resolution
7. Internal Tape Backup Unit, 20/40 GB
8. 24X IDE CD-ROM (for software installation)
9. Standard Windows Keyboard
10. 3.5" 1.44 MB floppy drive
11. Mouse
12. Monitor compatible with video card (minimum 17" min.)
13. Laser Printer
14. Additional hardware required to support modem transfers—Modem (must be compatible with Microsoft Windows NT and have a minimum speed of 9600 baud).
15. Postscript printer
16. Multi-port serial port for the necessary number of ports (Digiboard), or an Ethernet card and terminal server
17. Un-interruptible Power Supply

Large

1. Dell Power Edge 4600 1.8 GHz/512K, Xeon
2. Second processor 1.8 GHz/512K, Xeon Powerededge 4600
3. 1 GB DDR SDRAM, 4x266MB DIMMS
4. 4 x 18 GB 10 KRPM Ultra 160 SCSI Hard disk
5. PERC3, DC, 128MB hard drive controller, 1 internal and 1 internal channel
6. Intel Pro 100S Onboard Network Interface Connector with IPSEC network adapter
7. Video card capable of 1024x768 resolution
8. Internal Tape Backup Unit, 20/40 GB
9. 24X IDE CD-ROM (for software installation)
10. Standard Windows Keyboard
11. 3.5" 1.44 MB floppy drive
12. Mouse, 1.3A Wheel
13. Monitor compatible with video card (minimum 17" min.)
14. Laser Printer
15. Additional hardware required to support modem transfers—Modem (must be compatible with Microsoft Windows NT and have a minimum speed of 9600 baud).
16. Postscript printer
17. Multi-port serial port for the necessary number of ports (Digiboard), or an Ethernet card and terminal server
18. Un-interruptible Power Supply

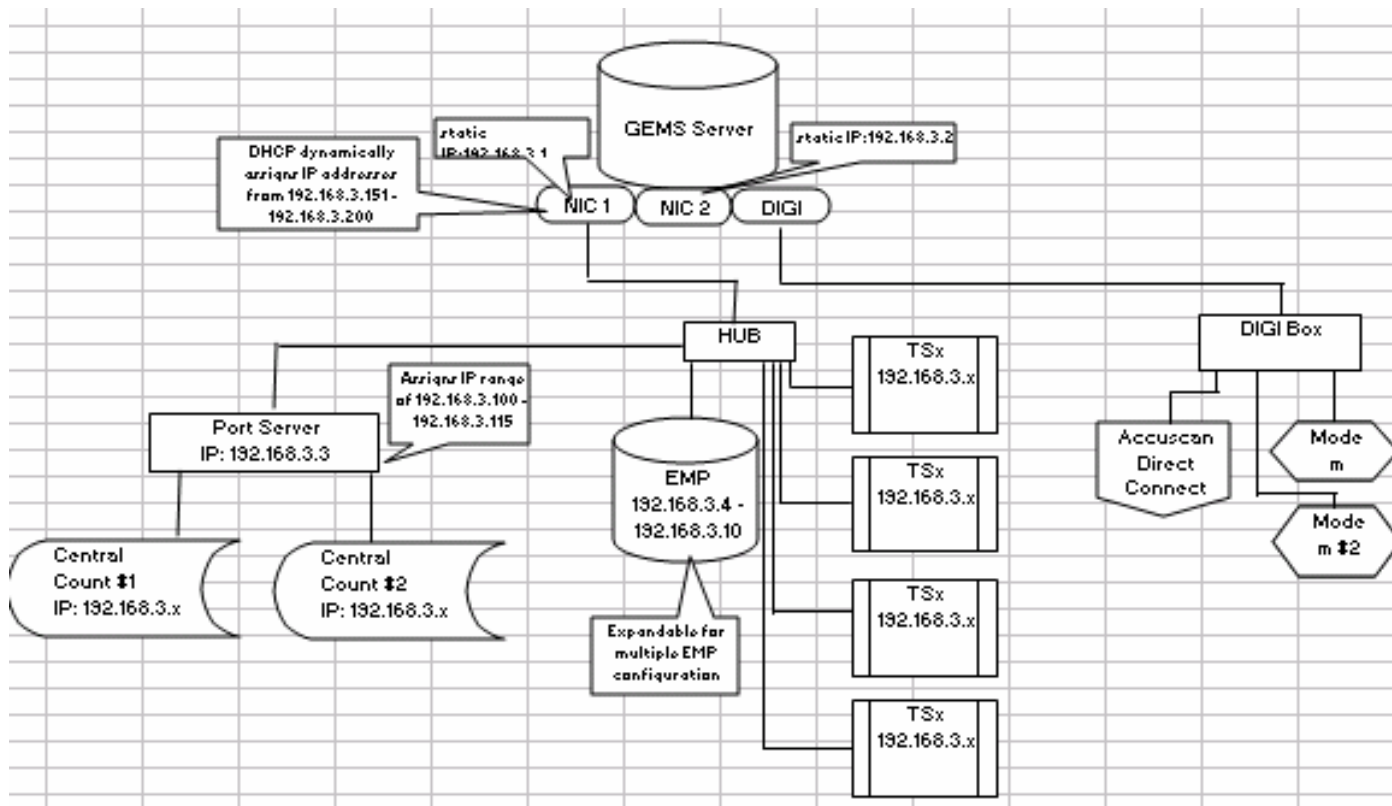
VCProgrammer and Key Card tool may be run on a small Dell as described above or most often a laptop with a 9-pin serial com port that the smart card burner/reader may be connected to. Most often the operating system is the same as the GEMS server but may be any of the 3 operating systems.

The following external smart card reader devices may be used with the VCProgrammer and Key Card tool application:

- Securetech ACR-30S
- Securetech ST-100
- AMC Model 152

3.2. Hardware and network setup and configuration

The system is a stand alone closed system, meaning it is not connected to the internet or outside networks. All tabulation peripherals operate independently and are stand alone. The transfer of data is accomplished through closed LAN connections and direct connections to the GEMS server. Proper network configuration is essential to efficient and accurate operation and is detailed in each hardware guide. A sample diagram is below and may change according to the actual configuration.



The instructions necessary to configure a Diebold Election Systems, Inc. (DESI) GEMS Server are described in the document “Instructions for GEMS and EMP Configuration” and shall be implemented. The instructions are written for a technician who has experience and competency with using the Windows Registry Editor, Windows Administrative Tool, and BIOS setup functions.

The configuration requirements are as follows:

- 1.) All network services and network ports are to be turned off, except those explicitly required to run the GEMS software;
- 2.) the “autorun” feature in Windows is to be disabled;
- 3.) the boot order is to boot from the hard drive first; and
- 4.) the BIOS is to be password protected to prevent changes to the boot order.

If this procedure is implemented on a DESI California customer server, this information must be communicated in writing to DESI’s Compliance Officer no later than one week after implementation.

3.3. Acceptance Testing

Acceptance testing is vital to any system – whether it is a new system or an existing system that has been modified. Procedures for each component of the System have been developed and are included in summary here and in detail in each component Hardware guide.

For GEMS –Section 9.6 System verification in the GEMS Election Administrators guide

Verify that all of the expected functionality of the GEMS workstation is available. Mark each function on a signoff sheet once it has been verified. The following functions are to be verified:

1. Copy from CD
2. Restore database
3. GEMS version
4. Reports version
5. View card in Card Editor
6. Print ballot artwork
7. Print administrative reports
8. Record/play back audio
9. Download memory card
10. Upload memory card
11. Print results report
12. Perform a backup
13. Review GEMS User's Guide
14. Verify GEMS Read Me file
15. JResult Client version

AccuVote OS Diagnostic Tests -Section 17 AccuVote-OS Precinct Count User Guide

Prior to use in either the central counting mode or precinct counting mode, hardware diagnostic tests shall be performed on every AccuVote- OS to be used in the election. The following diagnostic tests should be performed prior to any election.

Test the various internal components of the AccuVote by entering the diagnostic mode on the AccuVote OS and perform the following:

- a. Verifying the operation and setting of the Ballot Box deflector
- b. Verifying the setting of the System date and time (consider seasonal time changes)
- c. Testing the LCD monitor
- d. Testing the System Memory of the AccuVote
- e. Testing the operation of internal printer and ribbon
- f. Testing the Serial Port on the back of the AccuVote
- g. Testing all the scan sensors of the Ballot Reader
- h. Testing of all Memory Cards to be used in the election.

Diagnostic testing consists of those processes and procedures necessary to ensure hardware to be used in the election is working properly. If malfunctions are encountered, corrections shall be made and recovery procedures implemented. Prior to use, check all cabling and connections for each hardware component.

In the event any AccuVote-OS fails after official ballot processing has begun, diagnostic tests must be successfully run on the (failed) component after it has been repaired, replaced, or adjusted (in a manner deemed sufficient by the responsible Election Official to require re-testing for accuracy), before the component is returned to service.

Checklists for diagnostic tests are attached:

AccuVote-TSx Hardware Diagnostics –Section 6 - AccuVote-TSX Hardware Guide and Ballot Station Users' Guide

Each AccuVote-TSx to be used in an election or as a backup or spare device, must pass a standard diagnostic test before placing a removable PC card in the voting machine for verification and testing. This allows the jurisdiction's technician to test and or work on the AccuVote-TSx well in advance of having election specific data and the preparation of the removable election media. By conducting diagnostic tests in advance, any hardware error condition found can be promptly corrected prior to the election logic and accuracy testing cycle.

Diagnostic testing will include verification that all AccuVote-TSx components are operational. These include audio, serial connectors, date and time, network connection, display, printer and many more.

A historical log of hardware Testing and error conditions should be kept by the jurisdiction for all components. Sample checklists are included in the appendix to assist in the testing.

3.4. Software and firmware upgrades

Software upgrades shall be issued to each jurisdiction by the Secretary of State. Firmware upgrades for the AccuVote-OS will be distributed by Diebold Election Systems with the permission of the State only. Installation of these components shall be the responsibility of the jurisdiction, which may or may not request assistance from DESI. Detailed installation instructions and testing shall be included with the distribution. Diagnostic testing should be done after any software and / or firmware upgrade.

OS patches and upgrades should be downloaded from a separate computer, transferred by CD and also verified with DESI prior to installation.

4. Election Setup and Definition

The following procedures are unique to California and should be set in the GEMS database.

On TS options tab – Disable print Barcode

On OS options tab – Reject Overvoted races and All races blank voted

On OS options tab – Use report 195/196US and version 196

NO characters (“&”) shall be used in race or candidate names

- 4.1. Programming and configuration of election management system/software including audit records to be generated and retained

Election configuration options are defined under Setup in the GEMS menu bar. Setup options include general administration, regions, languages, voter groups, counter groups, ballot and race options, AccuVote-OS and AccuVote-TSx options, reporting sets, monitor scripts and finally, the printer audit function. Refer to Chapter 3 Election Setup in the GEMS User Guide for a more detailed explanation and instructions.

The GEMS Audit log contains a complete record of all transactions that have occurred in the election in GEMS, ordered by date and time. These should be printed and retained as part of the official election. This log is located in the drop down list under the GEMS menu.

- 4.2. Programming and configuration of vote recording/tabulation devices including audit records to be generated and retained

- 4.2.1.1 Transmission to GEMS client devices is managed from the AVServer, Central Count Server, and Regional Server function consoles. All transmissions to and from the AccuVote-TSx, Election Media Processor, AccuVote-OS Precinct Count, and CTS are managed from the AVServer function console, while AccuVote-OS Central Count is managed from the Central Count Server console, and regional transmission from the Regional Server console. These consoles are modal, implying that they may remain active while other GEMS functions may be activated, such as the election results reports windows or the Results Server console.

- 4.2.1.2 The devices include AccuVote-OS and AccuVote-TSx and may be viewed in more detail in Chapter 8 GEMS Client transmission in the GEMS User Guide as well as in the AccuVote OS User Guide and AccuVote-TSx user Guide.

- 4.2.1.3 Specific transaction in AccuVote-OS Precinct Count is recorded to the Audit Log, which is stored on the memory card. The Audit Log can neither be deleted or altered other than by means of the automatic posting of event transactions to the log.

- 4.2.1.4 All system operations performed on the AccuVote-TSx unit are logged to the unit's System Log. All election related operations are logged to the Audit Log. When an installed memory card has been programmed with election data, system operations are logged to both the Audit Log and the System Log. The Audit Log is stored on the memory card and the unit, and the System Log is stored on the unit only.

4.2.1.5 As with the GEMS System logs –hardware audit logs should be printed and retained as part of the official election. Please refer to the Ballot Station User Guide and AccuVote OS precinct count user guide for more detail.

4.3. System diagnostic testing procedures including audit records to be generated and retained

4.3.1. Pre-conditions for performance of tests, including test decks Accuracy Test procedures

System testing involves the combination of hardware and software tests of all equipment to be used in an election. Checklists and directions for these are included in the specific hardware user guides and a detail of the testing is outlined in the GEMS Election Administrator's guide in Chapter 4- Managing the election.

All checklists and logs should be printed and retained as part of the official record.

All phases and all hardware/software to be used in an election are tested. Diagnostic and Logic Testing is done on the AccuVote-OS used for Central Count or with precinct memory cards. Diagnostic and Logic testing are also done on any AccuVote-TSx to be used in the election.

The AccuVote-OS units to be used in an election will have diagnostic tests run prior to logic testing. These tests include:

- Verify or set System Clock for the Election Day time (anticipate any time changes that may occur prior to the date of the election).
- Test the LCD display
- Test AccuVote-OS System Memory
- Test all Memory Cards to be used in the election. (This is a process that checks that all portions of the memory card can be written to and can be read by the AccuVote. This process erases any past election data on the memory card.)
- Test and verify that the printer is working. (This operation prints a test pattern on the tape. This will be saved and attached to a serials AccuVote unit test sheet, along with other test reports, and saved as part of the election audit trail).
- If the AccuVote-OS is to be used to upload or download memory card data, the serial port should be tested either via a diagnostic test with a serial loop back connector or by testing the upload or download function of the unit with the GEMS host computer system. Those AccuVote-OS units that are not used for uploading or downloading of data are not required to have the serial connection tested.
- If the AccuVote-OS modem is to be used in the Election, either from a precinct or from a depot or drop-off location, then the modem and modem port should be tested either via diagnostic mode or via physical testing of the modem connecting to a modem bank on the GEMS server.
- The ballot box “deflector” (the mechanism that sorts ballots in the ballot box) should be tested as well.
- Finally, every AccuVote-OS to be used in the precinct should be tested prior to the logic test using “diagnostic ballots” which test all read heads on the AccuVote unit and prints a detailed report verifying that all read heads are functional. This test is run on all AccuVote-OS units to be used in the election. The test print out should be attached to the AccuVote unit test sheet, with the serial number of the AccuVote written on the

reader test print out. These sheets are kept as part of the testing audit trail and have the date, time, serial number of the AccuVote which produced the tape, and the initials of the person that ran the test.

Once diagnostic testing has been completed on all AccuVote-OS and or AccuVote-TSx units to be used in the election the reports indicated above should be attached to an AccuVote testing sheet which shows the serial number of the unit tested. Once diagnostic testing is complete, a logic test should be done to verify that the logic on the associated memory cards is consistent with the election setup and proofing that has been accomplished for the election (see Section 4.5 below).

4.4. System proofing

System proofing involves verification that the election definition is correct, the ballot layout is correct, the hardware is correctly configured and that it tabulates and reports correctly.

System Proofing is the mandatory in-house review of all election data and the inter-relationships of that data. This does not include the actual Logic and Accuracy tests of the computer hardware and software used to tally votes. System proofing shall include, but is not limited to, verification of the correctness of the following:

Assignment of jurisdictions participating in the election (districts);

Linkage of precincts to offices in which the election will be held (precincts);

Ballot content of each ballot type, including offices, district designations, candidate assignment and rotation, and ballot measures, all in the proper sequence (races and candidates);

Preparation of instructions, candidates' names, political designations, number to be elected, candidate rotation;

Verification that all voting precincts have been correctly assigned to a polling location or mail ballot precinct;

Formatting of headers and footers for each issue and electronic ballot page;

Print ballots to verify correctness of content;

Testing of hardware in the election configuration to verify correct tabulation of paper and electronic ballots; and

Testing of removable PC cards to be used in the election.

Proofing of election content includes the review of:

Hardcopy reports produced by the GEMS administrative reporting system;

Ballot facsimiles produced by GEMS; and

Recorded audio files that may be presented to the voter.

4.5. Logic and accuracy testing of system and components

Testing of election logic involves both data testing - ensuring accuracy of cast ballots, and system testing to ensure that data logic is consistent as it is transmitted from one component of the system to another - as it is downloaded onto memory cards, as ballots are cast, and as results are uploaded to the GEMS host computer application.

Logic testing should be conducted on the tabulation memory devices to be used in the election. Diagnostic testing is accomplished on all Accuvote-OS or TSx hardware to be used in the election. The Diagnostic and logic testing may be accomplished independently of each other, as one tests the memory device and the other tests the hardware. The County may choose to do logic testing of the memory device and testing of the hardware to be used in the precinct, together. However, diagnostic testing of the AccuVote hardware and logic testing of the precinct memory devices are sufficient so that it is not required that hardware and memory devices be tested together. However, all hardware and memory devices to be used in the election must be tested as described below. All GEMS reports to be used in the election should be printed to ensure desired formatting as well as verifying that expected results from testing were transmitted to the GEMS system.

For Optical Scan

Logic and Accuracy Test Ballots

Logic and accuracy test ballots will be prepared, at a minimum, for each ballot type in the election. These regular official ballots shall be marked "TEST" or otherwise clearly identified as test ballots.

The logic and accuracy test deck is generally made up of "First Oval or Last Oval" ballots for each precinct, LA5, LAn, or LAmx ballot decks, and, if the election has a race where the voter can vote for more than one candidate, multi-vote ballots.

First Oval / Last Oval test ballots consist of one ballot from every precinct in the election with the first or last oval filled in. If the "last" position is a write-in, the deck will have the last position candidate marked in every contest. These will be processed as part of the Memory Card accuracy test explained in section 2.3.3 of these procedures. Once the card is run on each memory card, a result tape is printed from that memory card. This tape is kept as part of the election audit. The serial number on which the test was run will be written on the tape, as well as the initials of the person that ran the tape and verified that the first or last candidate correctly received the votes. Finally, the memory cards will be uploaded for precinct so that results are verified and confirmed on GEMS. A verification on GEMS will also be made to ensure that this test creates 100% precincts counted report.

LA5, or LAn, or LAmx Test deck: A county may choose to make their own test decks from "blank" ballots ordered from their printer. If a 3rd party printer has been used, this may be required. Therefore the test deck must reflect a test that checks each candidate position with a known number of votes for each candidate. If the County has Diebold print the ballots, an automated deck consisting of an LA5, or a specific specified pattern (LAn), or an LAmx deck can be ordered. This deck is made up of election specific ballots that have been marked with a predetermined pattern of votes. For example, an LA5 deck will provide a race with a 1,2,3,4,5 pattern of votes that will be cast for candidates in every contest. For example, the 1st candidate will receive one vote, the 2nd candidate will receive 2 votes, and the 3rd candidate will receive 3 votes and so on until all candidates have had votes cast for them. If there are more

than 5 candidates in a contest, the pattern will repeat so that the 6th candidate will receive 1 vote, the 7th candidate will receive 2 votes and so on until votes have been cast for all candidates.

If there are fewer than 5 candidates, the pattern will only go up to the highest number of candidates in that race.

At a minimum, this deck is created for at least one precinct in each ballot style or as determined by the Election Official. When an LA5, “n”, or max test ballot deck is run for each ballot style, a “first or last” oval deck should also be run for all remaining precincts to verify that all precincts and memory cards are tested for proper printing of precinct ID marks on each ballot and that the appropriate “precincts counted” numbers are achieved.

The purpose of any of these L&A decks is to test that all candidates and races on all ballot styles are counting correctly. After each LA deck is processed thru the AccuVote-OS unit in precinct or central count mode, a precinct report will be run to verify that the correct votes are being tabulated by the AccuVote-OS unit and memory card, and/or by GEMS in the case of central count AV or mail precincts.

It is recommended that as many LA decks be used as is reasonable for the election, resources, and time available. However, at a minimum, the LA deck must be run for every ballot style. For example, an even year primary may preclude a county from running an LA 5 (or other LA) deck for every precinct due to the number of ballot styles and parties in an election.

For primary elections, an L&A deck should be created for each of the parties in a precinct ballot style.

When using Diebold’s automated L&A test decks, it may be noted that for offices that rotate across districts, an Election Summary Report on GEMS may not maintain the 1,2,3,4,5, etc. pattern. In this case an SOVC should be printed so that individual precincts may be viewed with results isolated for each candidate and race, thereby clearly showing the expected pattern of votes within each race.

Multi-vote test deck (optional): This test deck is produced by Diebold Election System automated test deck process. Where a county is using a 3rd party certified printer to print AccuVote optical scan ballots, the county will need to prepare its own test decks to test for “vote for more than one” races to confirm that it is programmed for more than one candidate. This deck is produced for Ballot Styles where multiple votes (Vote For Two or more) are authorized. All races that are “Vote for one” are ignored in this deck. The first ballot is the “overvote” ballot. Each race has one more prefilled oval than allowed for the race. The next set of ballots rotate in combinations of the number of votes allowed, e.g. with Vote for Three and 6 candidates, the deck would produce a ballot for ovals 1,2,3 followed by 2,3,4, then 3,4,5, and then 4,5,6; continuing on to the last oval in the race. Tabulation would be 1 vote for first and last candidate, 2 votes for 2nd and 2nd from last, 3 votes to the 3rd and 3rd from last and so on until the candidates in the middle are receiving the maximum number of votes allowed.

Performance of Logic and Accuracy Test

The procedures below assume that a logic and accuracy will consist of an integrative, end-to-end test of the programmatic logic of the vote tallying system, as well as the accuracy of the vote tallying system.

An election-specific Logic Test should be performed on the Memory Cards to be used and the Central Count readers as applicable. A precinct results tape should be printed for each logic test on the memory card. This tape should show the expected pattern of votes for each candidate race based on the test deck created by the County, or ordered from the ballot printer. As the Memory Card is tested it should be verified for the expected results, uploaded to GEMS, and reports printed that are confirmed to have identical results to the precinct results tapes printed during the test. These memory cards are then secured until they are loaded into the AccuVote optical scanner and "set for election".

Run LA5 (n, or max) deck for every style onto a Memory Card using an AccuVote.

Run LA5 (n, or max) deck for every style that will be used for a Central Count or Absentee Count.

Run a First Oval / Last Oval deck for all precinct Memory Cards not included in the LA5 (n, or max) decks.

Print reports for every memory card and examine for expected results pattern.

Upload all memory cards to GEMS system via direct or via modem.

Once Memory Cards have been loaded with test data, all memory cards should be uploaded to the GEMS host. After all memory cards have been uploaded, an SOVC should then be printed and used to compare the results received by GEMS with the precinct tapes printed during the L&A test deck or "first or last" oval deck runs of the AccuVote memory cards. All AccuVote-OS results print outs and GEMS reports used to verify test results will be saved as part of the election audit process.

Modem Testing

The Election Official determines whether unofficial results from the precinct are to be transmitted from the precinct or a remote drop off center or are to be brought into a central site for upload directly into GEMS. Modem use is a procedure that has been approved by the Secretary of State's Office. If unofficial results are to be transmitted, any AccuVote that will be used for such transmission should be tested prior to the election. If results are transmitted from the polling place, site surveys should be conducted to ensure the dialing sequence for outgoing calls at the site, that telephone lines are "live" and available at the time the polls close. If a remote drop off site is used, a test of the modem from the remote site should be used with multiple memory cards to upload to GEMS, creating a "stress test" to test incoming modems and verify that "roll over" lines are set correctly to receive concurrent incoming calls of unofficial results from multiple locations at the same time.

For DRE Electronic Ballots

The election-specific test is an essential method of testing electronic ballots to be used in that particular election, ensuring that the AccuVote-TSx's perform properly. The purpose of this test is to ensure that the ballot used with a particular election will function properly when run with the ballot tabulation software for that election.

Performance of Accuracy Tests

Any hardware failure of a component during testing will necessitate re-testing of that hardware with election specific data prior to placing that hardware back in use for the

election.

The tests shall be conducted by using a combination of automated and manual tests that incorporate pre-determined test scripts to verify that the system is correctly and accurately recording, tabulating, and reporting vote results. These scripts include:

An automated test script which provides a unique vote value for all candidates within a race, and tests all ballot styles and rotations in the election. This data is uploaded to GEMS. The summary report from the AccuVote-TSx is then compared with the Summary Report of the GEMS server to ensure that tabulation and reporting of candidate votes in all races is occurring accurately on both systems. A Statement of Votes Cast Report is used to verify that the results are identical at the precinct level.

This process tests the reporting functions of GEMS and the AccuVote-TSx as well providing verification that the election logic is mapped correctly between the GEMS server and the AccuVote-TSx ballot styles in the precincts.

An automated test process which gives votes to all candidates in all precincts. This test verifies that all precincts and races are correctly mapped between the GEMS database and the AccuVote-TSx ballot station.

Use of one of two possible manual vote tests. A manual testing process, which incorporates a pre-determined random script of votes for all races and ballot styles as described below, OR a manual testing process, aided by the testing software, which provides a manual vote for each candidate in each ballot style of the election, but provides a unique value to all candidates within a race. Votes will be checked in GEMS to determine the logic and accuracy.

Another test following the manual or automated test logic and accuracy test is to print the ballots on the AVPM during this process so that the AVPM testing occurs for races and ballot styles for that election. These printouts become part of the audit trail which shows that the AccuVote-TSx hardware and software are accurately recording and printing ballots as voted for all candidate and race combinations.

If a voting machine or the central tabulating system does not accurately count the test script or test vote, the cause for the error shall be ascertained and corrected. An errorless count shall be successfully produced before the system is approved for use in counting votes.

4.5.1. Logic Test procedures

Preparation of Accuracy Test

The responsible elections official shall prepare the Accuracy test ballot decks or scripts and make it available for testing. Results reports of accuracy tests must be available for inspection and sign off by the Logic and Accuracy Board.

Accuracy Test with the AccuVote-TSx and AVPM

Accuracy testing for the AccuVote-TSx and AVPM audit trail should include the

following considerations to represent and simulate an election environment.

Use a backup copy of the actual GEMS election database (saved as "Test" version);

Testers should vote predetermined test script in election mode to simulate actual conditions;

The election test script should have a random sample of precincts and in a Primary, the parties, including the "crossover" parties, were applicable as well as each unique style;

Test script should test for write-ins, undervotes, blank votes and a number of blank ballots;

Accuracy testing should include the printing of the AVPM audit trail to test the accuracy of the audit trail; and

AVPM audit trail should be verified against AccuVote-TSx results report and the GEMS results report

The resulting logic vote tallies shall be compared in detail with the predetermined logic vote tallies. Any differences between the two logic vote tallies shall be resolved, and logic testing shall be performed as many times as may be necessary to achieve a logic vote tally identical to the predetermined logic vote tally.

If the results report shows any variance in the tabulation of votes, the cause for the error shall be ascertained and corrected and an errorless count shall be made before the system is approved for use in counting votes.

The election administrator enters simulated voter selections, and casts votes in a predetermined voting pattern. The voting pattern must insure each candidate and each ballot measure receives at least one vote, tests under vote (it is not possible to over vote on the AccuVote-TSx) and accepts only the proper ballot types.

Pre-conditions for performance of tests, including test deck

Logic testing consists of those processes and procedures necessary to ensure that vote tally programs and hardware correctly interpret, summarize, and report voters' marks for a specific election. This is normally a series of tests using election-specific ballot cards with voting position ovals marked in a predetermined manner.

Successful testing will demonstrate that each candidate and ballot measure receives the proper number of votes; the system reports the proper number of over and under votes; the system accepts only the proper ballot types and rejects improper ones; and the inactive voting positions are not being tabulated.

Logic tests will be conducted using test materials below in such a manner as to meet these guidelines. All tests shall result in reporting that matches predetermined results. All reports and test materials must be retained as part of the official election record for the time period dictated by law. [EC §15001(c)(1)]

Accuracy Test procedures

Accuracy testing consists of those processes and procedures necessary to ensure that the vote tally programs and hardware correctly interpret, summarize and report voters' marks for a specific election. This is normally a series of tests using test ballots which are made from actual printed ballots, and accumulation of results from both AccuVotes, by transferring results from the Memory Cards via an AccuVote and/or modem to GEMS, and from the Central Count readers to GEMS.

Logic Test procedures

Logic testing consists of those processes and procedures necessary to ensure that vote tally programs and hardware correctly interpret, summarize, and report voters' marks for a specific election. This is normally a series of tests using election-specific ballot cards whose voting position ovals are marked in a predetermined manner.

Successful testing will demonstrate that each candidate and ballot measure receives the proper number of votes; the system reports the proper number of over and under votes; the system accepts only the proper ballot types and rejects improper ones; and the inactive voting positions are not being tabulated.

4.5.2. Retention of test materials

The Logic and Accuracy tests, conducted at the time of certification (or recertification) if necessary to the Secretary of State, storage logs or records, if any, and balancing reports, if any, shall be retained as long as the electronic ballots are required to be kept for the election. (EC §15001 (2005))

4.5.3. Logic and Accuracy Board and certification of testing

A Logic and Accuracy Board shall be appointed by the responsible election official and, insofar as is practicable, shall be comprised of the same persons prior to, during, and after the election. The Counties are responsible for the development of its Logic and Accuracy Board.

4.6. Ballot tally programs

Copies of ballot tally programs shall be sent to the Secretary of State prior to each statewide election in the timeframe prescribed by law [EC§15001(a) (2005)]. Any subsequent changes to the ballot programs must be resubmitted to the State.

4.7. Election Observer Panel

All procedures prescribed in this Manual shall be carried out in full view of the public insofar as feasible. In addition, the responsible elections official shall devise a plan, subject to the approval of the Voting Systems Panel, whereby all critical procedures of the vote tallying process described in this Manual are open to observation by an Election Observer Panel. Representatives of the qualified political parties and representatives of the news media shall be among those invited to serve on this Panel and shall be given the opportunity to observe that the correct procedures have been followed in the receiving, processing, and tallying of all the voted ballots. The Election Official shall appoint an Election Observer Panel; failure of any or all invited parties to participate on the Panel shall not stop procedures from continuing as otherwise required by law.

4.8. Hardware maintenance and preparation for use

Ballot counting equipment must be maintained in a satisfactory manner in accordance with vendor specifications, where available.

Individual component testing and maintenance if necessary shall be performed by qualified personnel that have been trained to do this before each election.

Any equipment, or component, that fails or malfunctions during maintenance and testing shall be serviced, repaired, or replaced and appropriately tested prior to the use of that equipment or component in any election.

Certification -- All equipment and specialized vote tabulating equipment must be certified for use in elections by the Secretary of State prior to use in any election.

Maintenance -- All equipment to be used in each election shall be maintained at all times in good working order and all maintenance and /or repair logs shall be kept for each piece of the system.

Notification -- For each statewide election, the responsible county elections official shall cause to be prepared a list, including quantities, of all equipment to be used to tabulate votes during the semi-official and official canvass.

Send Copy to Secretary of State -- Seven days before each statewide election, the elections official shall certify to the Secretary of State the results of the logic tests as well as the accurate functioning of all ballot counting equipment. This certification shall also affirm the use of the same equipment for pre-election testing and for semi-official and official vote canvasses. In the event of a change to the ballot tally program occurring after this certification, an amended certificate shall be submitted no later than the day before the election. EC §15001(a) (2005)]

Amended Certification -- In the event any of the host tabulation computer equipment is repaired, altered or replaced following the certification specified in the above section and prior to completion of the official canvass of the vote, an amended certification of logic and accuracy testing and a revised list of equipment used must be submitted to the Secretary of State not later than submission of official canvass results.

5. Polling Place Procedures

5.1. Precinct supplies, delivery and inspection

Precinct Supplies

In addition to those supplies required for the conduct of elections generally, the Election Official shall supply to each precinct a sufficient quantity of the following:

For AccuVote optical scan precincts

- a. Marking devices compatible with the AccuVote ES-2000 Voting System as recommended by Diebold Election Systems
- b. Ballots of such form as required for tallying by GEMS or the Vote Tally System. In primary elections, ballots shall be appropriately tinted or otherwise identified for each political party and for nonpartisan voters, as directed by the Secretary of State.
- c. Secrecy envelopes or folders in sufficient quantity to conduct the election. These envelope/folders must entirely cover the ballot area on which voting marks are made. The envelopes/folders provide security coverage of voted ballots until the ballots are deposited into the ballot box. The envelopes/folders are not deposited in the ballot box with the voted ballots, and may be reused by successive voters.
- d. One or more ballot boxes or containers that may be sealed or locked, into which is placed each voter's ballot(s)
- e. Containers or envelopes in which to enclose the following: (1) election supplies; (2) voted ballots; (3) provisional, voted absentee, spoiled, unused and cancelled ballots. At the option of the Election Official, the container provided in Item d may be used for all or part of this requirement.
- f. A Precinct Ballot Statement
- g. Other forms, logs, and seals for containers, equipment and supplies necessary for the conduct of the election.

For AccuVote DRE precincts

- a. AccuVote-TSx with AVPM including sealed canister and paper roll
- b. Keys to open the PCMCIA door and printer compartment
- c. Voter card encoders with backups
- d. Voter access cards 3 if only one unit, 10 if more than one
- e. AccuVote-TSx units may be used as backup Voter Card encoders
- f. Additional AVPM units to used as backups if needed
- g. Additional security canisters, seals and paper rolls (1 per AccuVote-TSx)

- h.** Privacy screens
- i.** Demonstrator unit if available

5.2. Polling Place Setup

For AccuVote optical scan precincts

The precinct officer shall check that the following has been delivered and verified:

- a.** An AccuVote tabulator with the correct memory card installed. This can be verified by inspecting the printed Results Tape. If Multiple Precinct Processing is to be implemented, the AccuVote device shall be located so that it is equally accessible to voters and precinct officers of each precinct.
- b.** A ballot box compatible with the AccuVote. It has three compartments or bins with slots. During operation, the AccuVote is inserted into the top of this ballot box, and processed ballots emerging from the AccuVote are fed into the right and center bins.
- c.** Two keys appropriately labeled. One key will open the printer compartment on top of the AccuVote. Another key will open all the doors of the ballot box.
- d.** On receipt of the AccuVote-OS, verify that the identification number on the AccuVote-OS is the same number that is listed on the Voting Device Report or precinct supply list. The serial number is located on the back of the AccuVote-OS next to the plug.
- e.** Check the number on the seal that locks the memory card slot in place. This is the same number that is listed on Voting Device Report or precinct supply list. Report any irregularity (broken seal, incorrect seal) to the Election Official. Voting may commence, but ballots are to be deposited in the left side auxiliary bin until corrective action, if any, is taken or directed by the Election Official.

AccuVote Ballot Box set up

- a.** Verify that no ballots remain in any of the ballot box bins from testing or previous elections. Invite any persons assembled at the polling place to view the empty ballot box and observe the closing of the ballot box
- b.** Remove the ballot slot cover on top of the ballot box.
- c.** Lift the AccuVote and slide it into place on the top of the ballot box, leaving enough room in the back of the unit to turn the power switch on. Thread the power cord through the chute in the ballot box and plug it into the back of the AccuVote unit.
- d.** Push the AccuVote back against the ballot box plug. Lock the front door of the ballot box to firmly secure the AccuVote to the ballot box.
- e.** Close and lock all ballot box doors. The auxiliary bin door may be left open.

For AccuVote DRE precincts

To set up the AccuVote-TSx with the AVPM refer to the AccuVote-TSX Poll workers Guide and complete the following steps:

- a.** Assemble voting booths with AccuVote-TSx
- b.** Install AVPM, feed paper and load security canister.
- c.** Plug the AccuVote-TSx into the AC outlet
- d.** Unlock side door and power on
- e.** Verify that the serial number and precinct on the security canister and the display screen match with one another
- f.** Report any problems to the appropriate election official / jurisdiction hotline and / or help desk
- g.** Make a demonstrator device available, if applicable

5.3. Opening the polls

For AccuVote DRE precincts

To open the polls with the AccuVote DRE precincts:

- a.** Perform printer test
- b.** Allow zero report to print; designated election officials should verify zero counts in all races and sign in appropriate space on the tape
- c.** Start the take up spool to the canister where it will be stored
- d.** Lock the printer compartment and side door
- e.** Place key in envelope for storing while the polls are open
- f.** Before the precinct board allows votes to be cast on any machine, it shall proclaim aloud at the place of election that the polls are open

For AccuVote optical scan precincts

To open the polls with the AccuVote optical scan precincts:

- a.** Unlock the printer cover and turn the AccuVote on
- b.** The AccuVote will automatically print the Zero Tape report when it is turned "ON"
- c.** Check the AccuVote Liquid Crystal Display (LCD). The LCD indicates the poll number and the public counter are at 0.
- d.** The Zero Tape is the final initialization report that shows no ballots have been counted. Depending on how the election memory card is programmed, it may also show zero vote totals for each race and measure.

- e. If the Zero Tape does not automatically print when the AccuVote is turned on, report the issue to the Election official. Voting may commence, but ballots are to be deposited in the left auxiliary bin until corrective action is taken.
- f. Verify that all candidate names and propositions displayed on the Results Tape are the same as they appear on the official ballot.
- g. Verify that all candidate names and propositions have a zero total.
- h. If any of the conditions described under “e” or “f” do not exist, this must be reported to the Election Official. Voting may commence, but ballots are to be deposited in the left auxiliary bin until corrective action is taken.
- i. The precinct board shall sign the zero tape. The zero tape is not detached. Invite any persons assembled at the polling place to view the zero tape. Roll or fold tape and lay the zero tape inside the AccuVote. Replace and lock the printer cover. The AccuVote is ready to accept ballots.

5.4. Polling place procedures

The following are recommended polling place procedures for the AccuVote DRE and AccuVote optical scan products:

For AccuVote DRE precincts

- a. Surrender of Absent Voter Ballot: No person to whom an absent voter ballot was issued is permitted to vote at the polling place unless he or she surrenders the ballot. The ballot is to be marked "SURRENDERED" and placed in the container marked for spoiled and unused ballots. The voter is then permitted to vote in the normal method for the precinct.
- b. Voted Ballot Sealed: If a voter returns a voted absent voter ballot, verify that the ballot is sealed and that the signature of the voter is on the identification envelope. Require any person who returns an absent voter ballot in person, either to a polling place or to the elections office, to sign a log or record before depositing his or her voted and sealed ballot in the specially marked container.
- c. During the day, at least every hour, inspect AccuVote-TSx to ensure that the power cord is connected and screen is displayed properly.
- d. Offer instructions to voters in the proper method of inserting a Voter Access Card into the AccuVote-TSx. Offer each voter further instruction as required.

Activating the AccuVote-TSx

- a. After the voter's name is checked off the roster, they will be given a Voter Access Card. A voter access card is created using either a AccuVote-TSx or a Voter Card encoder, or VCProgrammer. Before handing the voter the Access Card – the pollworker will reinsert the card into the unit used to create it to read it and verify they have created the correct card. As the voter approaches any available AccuVote-TSx, the inspector will allow the voter to enter an open voting booth. A demonstrator unit may be used to assist the voter.

- b.** The voter inserts the voter access card into the AccuVote TSx, and the system reads the voter access card for the appropriate ballot display
- c.** The voter selects the ballot choices and reviews those choices on the AccuVote-TSx summary screen
- d.** The AVPM audit paper trail will generate a paper facsimile of their ballot selection to verify against the on-screen summary of the ballot.
- e.** Upon casting the vote, the AVPM paper audit trail results are stored on both the removable media and the flash memory. The AVPM audit trail is automatically taken up into the security canister.
- f.** After touching the “Cast Ballot” button, the public counter and protective counter is incremented. Redundancy provides a check and balance where the numerical count of both files must match.
- g.** The electronic results are stored electronically in a random order
- h.** After recording the ballot, the voter access card is disabled
- i.** Whenever the system is in use, the audit log is activated
- j.** Upon completion of all audit checks, the next voter is allowed to proceed with making selections and casting his/her ballot

AccuVote-TSx Privacy

The county elections office will endeavor to arrange the AccuVote-TSx units, wherever and whenever possible to provide voters with a private voting environment.

In jurisdictions where the main voting method is paper and the AccuVote-TSx is used only for ADA accessibility, the poll workers may allow non-ADA voters to vote on the AccuVote-TSx to provide additional votes and paper audit trails to the AVPM and to guarantee anonymity for the voters.

When a blind voter is using the AccuVote-TSx, the poll worker or blind voter’s assistant shall place the VIBS cover on the AVPM printer housing. The VIBS cover and the blank AccuVote-TSx screen will provide the blind voter privacy when using the AccuVote-TSx in VIBS mode. The Voter may be assisted with inserting the Voter Access card if necessary as well.

Voters should be given a large magnifier, if needed, to magnify and see the contents of the AVPM window.

Voters who leave the booth without printing their ballot or casting their ballot (“Fleeing Voter”) will have their voter access card ejected and their vote not counted. There is a 30 second time out message that will appear on the screen after a period of 2 minutes of inactivity. The screen will count down from 30 seconds, and will allow the voter to resume voting by pressing the “resume” button, or the countdown will continue to 0, at which time the voter access card is ejected and the ballot is cancelled. Verify the card has been cancelled.

If the voter allows the time to run out –a new access card will need to be coded for them.

For AccuVote optical scan precincts

- a. Instruct each voter in the proper method of voting by filling in the oval, casting write-in votes and using the secrecy sleeve. Each voter shall be given further instruction and practice time with a demonstration ballot, if necessary.
- b. Write-in space is provided on the ballot. The voter must both write the name of the candidate and fill in the voting position oval for the vote to be counted by the AccuVote.
- c. Instructions in inserting voted ballots into the AccuVote shall be given after the voter has completed voting, if necessary.
- d. Check periodically to make sure the AccuVote is working properly.

Left Side Auxiliary Bin of the AccuVote

The Left Side Auxiliary Bin of the ballot box may be used as a storage area, if none has been provided, for the temporary storage throughout Election Day for these ballots:

- Delivered, voted Absentee Ballots;
- Surrendered Absentee Ballots, unless directed otherwise by the Election Official;
- Voted Provisional Ballots;
- Voted Ballots that will not be accepted by the reader; and
- Ballots voted during emergency periods.

During the time when Polls are open, the Results Tape shall not be removed, nor shall any portion of the Results Tape be torn off.

If for any reason the AccuVote becomes inoperative, voting will continue. From the time the device becomes inoperative, until it is made operable or replaced, voted ballots shall be placed in the Left Side Auxiliary Bin. If, and when the AccuVote is restored to operation, a Precinct officer, witnessed by a second precinct officer shall enter ballots, which have been stored temporarily in the Left Side Auxiliary Bin, into the AccuVote. This process shall neither hinder nor delay voting, and shall be performed during inactive voting periods, or after the last voter has voted and before the “Ender Card” is processed. During this process, if a damaged ballot is encountered, it shall be placed in an envelope or container appropriately labeled. Such ballots shall be held by the Election Official for inclusion in the Final Official Canvass.

5.5. Special needs voters

For AccuVote-TSx precincts

In a polling location where there is only one AccuVote TSx – it is advisable that the poll workers encourage other voters to use the TSx unit in order to protect anonymity.

The AccuVote VIBS is designed for use by voters with a wide variety of disabilities:

AccuVote-TSx System Serves Voters With Specific Needs

All Voters appreciate the AccuVote-TSx's bright screen with its large, easy-to-read fonts and large voting target area. Voters do not need to touch the square, but instead can touch anywhere within the voting rectangle. All voters are served by the screen's clear indication of the voter's choices, the ease of navigation from screen to screen with a simple touch, and the summary of the voter's choices at the end. The large 15" screen size allows for multiple races on a single screen to further ease the ballot navigation process.

The ability to magnify and go to high contrast will also be beneficial to a voter who is visually impaired.

Visually impaired Voters are able to cast a secret, unassisted ballot for the first time using a simple headset and keypad that can be connected to a unit in the polling place. And audio is played for them to make their selections./ With the option to have the screen completely blank to ensure their privacy even with an assistant standing near by, blind voters listen to an audio ballot and make their selections with the keypad. The 5 key, with its raised dot, is used to select and de-select candidates when their names are read.

Voters in Wheelchairs have easy access to the AccuVote-TSx with its fully adjustable screen angle and please refer to the TSx Poll workers guide for instructions.

Voters with Limited Dexterity appreciate use of the AccuVote-VIBS' tethered keypad, which can be placed in their lap for use without the need to raise their arms. The adjustable screen angle enables them to position themselves close to the touch screen. The screen and the wide voting target enable them to vote with confidence and secrecy using a simple mouth stick.

Curbside voting may be accommodated by moving the TSx unit out to the curbside.

For AccuVote optical scan precincts

Voter Assistance

A precinct officer shall be available near the AccuVote device for assisting voters. Secrecy sleeves should be utilized to protect the voter's privacy. This officer may be on the board of any precinct, if Multiple Precinct Processing is implemented. The same officer does not necessary need to perform these duties throughout the day. Those duties may be rotated between each precinct.

- a. Make sure the voter stub has been removed from the ballot and given to the voter. Assist the voter, if requested, in how to insert his/her ballot. An Assisted Voter affidavit does not need to be completed unless the assistance requires the viewing of the voting positions on the voter's ballot.
- b. Read and inform the voter of the text of messages displayed by the LCD, if any.
- c. Inform the voter of what corrective action, if any, may or must be taken, or inform the voter of what options, if any, may or must be chosen.
- d. When assisting the voter as described above, the precinct officer shall position him / herself, so that the voted portion of the ballot shall not be in that officer's view.

5.6. Provisional voters

For AccuVote DRE precincts

The AccuVote-TSx (DRE) Ballot Station is capable of separating provisional ballots from non-provisional ballots. When a voter appears at the precinct and is identified as a provisional voter, the AccuVote-TSx ballot station software identifies the voter's ballot, so that it can be retrieved, should the voter be determined eligible or ineligible by the canvassing board. In order for that ballot to be retrievable, the provisional voter is processed and assigned a voter ID number. The voter's provisional ID number is stored in the voter access card by the poll worker along with the voter's precinct and ballot style information. The voter proceeds to the AccuVote-TSx Ballot Station, inserts the voter access card, votes and casts the ballot, and returns the voter access card for re-use by the polling place.

The provisional ballot is recorded but not added to the result totals. Should the provisional voter's ballot be determined to be eligible for counting by the Election Board during the post election canvass, it would be identified in the election system by the provisional voter's ID number, and retrieved and added to the election result totals. This process is accomplished in GEMS on the challenged ballot screen, where the provisional voter's ID number is located. The GEMS administrator has the option to "accept" or "reject" the provisional ballot.

When electronic provisional (challenge) voter ballots are used, they will be identical in form as official electronic ballots. In lieu of electronic provisional ballots, paper provisional ballots may also be allowed. Provisional voter ballots are to be used at all elections by voters who claim to be registered but whose right to vote cannot be immediately established. If a voter's eligibility to vote cannot be established, the election official uses the Voter Card Encoder to designate the provisional (challenge) voter and load the applicable ballot, and the provisional voter's results will then be automatically isolated by the AccuVote-TSx system for resolution after the election. Procedures should be established to reconcile, count and / or reject the appropriate Provisional ballots cast electronically; these procedures should be in place for Paper Provisional ballots as well.

For AccuVote optical scan precincts

Paper provisional ballots may be issued at the polls according to the prescribed state laws. The procedures for issuing a paper provisional ballot are the same as an AccuVote DRE precinct in that the provisional voter will be assigned a provisional ID number. The provisional ID number will be on the voter's provisional ballot envelope. The provisional ballot will be adjudicated during the post election canvass process by a jurisdiction's canvass board, or by authorized members of the jurisdiction's staff.

5.7. Closing the polls and vote reporting

For AccuVote optical scan precincts

Closing the polls shall be conducted as prescribed in Election Code Section 14401 et. seq.

The Following Procedure must be completed in Public View:

- Promptly at 8 p.m. declare, "The polls are closed". Any voter in line at the time of closing must be allowed to vote. No voter who arrives after 8 p.m. may vote.

Precinct voter ballots: The AccuVote will have a total number of ballots counted on the Results Tape. Keep the ballots with the write-in votes separate from other ballots.

Process Voted Ballots: All ballots cast at the polls and counted through the AccuVote in the precinct are counted, except for the write-in votes. All of the cast ballots should be reviewed for valid write-ins.

Upon inspection, if there are write-in vote(s), no further action is required. Place the ballot cards with write-in votes within a precinct in one stack.

Following the close of the polls, the precinct board shall remove any and all voted ballots from the Left Side Auxiliary Bin that were not counted by the AccuVote. The precinct board may attempt to feed these ballots into the AccuVote for counting. Those ballots that continue to be rejected by the AccuVote should be placed inside the designated container as directed by the Election Official and sealed.

The precinct board shall unlock and remove the printer cover of the AccuVote device, then obtain access to the front of the AccuVote by unlocking the top front door of the ballot box. While holding the YES and NO button on the front of the AccuVote at the same time, insert the Ender Card into the AccuVote. This will initiate the FINAL Results Tape that will print automatically. If the tape does not print, call the Election Official immediately. The printed tape will include both the ZERO TOTALS TAPE and the FINAL RESULTS TAPE. The precinct board shall tear the tape from the AccuVote and return it to the Election Official as specified.

After printing the final results tape, the precinct board can (1) immediately transmit, by telephone, the unofficial election results to the Election Central GEMS Server; (2) transmit by telephone the unofficial election results to the Election Central GEMS Server at a regional / accumulation center; or (3) return the AccuVote memory cards to the Election Central for direct upload to the GEMS Server. The AccuVote-OS unit shall be turned off and unplugged from the power outlet and immediately moved, or transported to another location as directed, to a designated telephone jack for transmitting results. The telephone number to the Election Central GEMS Server shall already be programmed into the Memory Card by the Election official at the time the units are sealed before delivery.

If transmitting by modem at the precinct, the Precinct Board will connect the telephone cord from the wall into the back port of AccuVote and ensure that the AccuVote unit is plugged into an electrical outlet. If no power outlet is near the telephone line, then the modem transmission may be completed using the AccuVote battery. The AccuVote will be turned on and the precinct official will answer the LCD prompts until the message "Results sent Okay" appears.

After receiving the "Results Sent Okay" message, the Precinct Board members will turn off the AccuVote unit and return the AccuVote to its carrying case.

THE MEMORY CARD SHALL NOT BE REMOVED FROM THE ACCUVOTE UNIT EXCEPT BY AN AUTHORIZED ELECTION OFFICIAL which may include poll workers and couriers.

The precinct board shall sign the AccuVote tape and record the ballots cast total on the Precinct Ballot Statement as directed by the Election Official.

Examine the Ballot Bins: Any delivered voted Absentee Ballots shall be placed in the container provided for that purpose. Place any surrendered Absentee Ballots in the container provided for that purpose. Place any voted Provisional Ballots in the container provided for that purpose.

The Precinct Board will remove all of the voted ballots from the ballot box. The Precinct Board will place voted ballots into envelopes or containers and seal with the seal provided

for that precinct. Also, the write-in ballots from the center compartment of the ballot box will be removed and placed in an envelope or container as directed by the Election Official.

For AccuVote DRE precincts

The Following Procedure must be completed in Public View:

- Promptly at 8 p.m. declare, "The polls are closed". Any voter in line at the time of closing must be allowed to vote. No voter who arrives after 8 p.m. may vote.

Ending the Election

- On all AccuVote-TSx units, insert the Supervisor card.
- At the supervisor screen, enter the assigned Personal Identification Number to enter the supervisor screen, and then press the "OK" button
- Press the End Election button.
- Open all AVPM units with the AVPM key and follow the county procedures for printing the report tapes
- At the report prompts, press the print buttons according to poll worker instructions
- At the prompt, use the key to open the side cover on all units (remove transport media if election is ending) and turn the AccuVote-TSx power off. Unplug the AccuVote-TSx and close the booth.
- If necessary, follow the county procedures for upload accumulation
- Seal the PCMCIA card(s) in the designated envelope for transport. Count to make sure there is a PCMCIA card for each AccuVote-TSx Ballot Station.
- Collect any absentee voter ballots or paper provisional voted ballots, if used
- Complete all relevant paperwork as required by the jurisdiction and seal in appropriate containers for return to Election Central

Packaging for Return

- Package AVPM security canisters as directed by the Elections Official
- Package AVPM printer housing and paper roll as directed by the Elections Official
- Package or seal all other supplies, as directed by the Elections Official
- Verify that the required materials have been placed into the appropriate container(s), listing the materials inserted in each container and indicating that the container(s) were appropriately sealed

- Return all transport media, paper ballots and supplies as directed by the elections official.

Returning Voted Ballots and Materials

Return all ballots and supplies as prescribed by the Election Code and as directed by the Election insert EC Official. (EC §14430-1435; 15550-15551; 17301-17306 (2005))

5.8. Securing audit logs and backup records

Procedures should be in place to insure that all audit logs are retrieved and retained and back up copies of all records should be retained as part of the official election. Audit logs from the OS and TS units should be retained and may be printed at the elections office as part of the semi-official canvass. Audit logs from the GEMS server should be printed and retained as part of the official records for the time period required by law.

5.9. Troubleshooting and problem resolution

Troubleshooting the AVPM

If the AVPM does not work properly due to paper jam, or the paper record is unreadable during the course of a voter verifying the paper audit trail, the poll worker will determine whether the voter has completed casting the voter's ballot. If the ballot has been cast, the pollworker will close the AccuVote-TSx for voting, until the issue is resolved. If the voter has not completed voting, the pollworker will cancel that existing electronic ballot and create a new voter card for the voter, sending the voter to another AccuVote-TSx unit to complete voting.

The pollworker will contact the county elections office for assistance and report the problem.

A new security canister and paper roll may be loaded into an AVPM, if it is determined that the printer is functioning, but the paper was jammed or the printer cover was not firmly locked in place to allow the print to be visible on the paper. If it is necessary to replace the security canister with a new one, the canister in the AccuVote-TSx at the time of the jam will be placed in the poll worker's election return supply bag or designated container and stored by the precinct captain / inspector until the close of polls. The canister will be returned with the election AccuVote-TSx units and supplies to the central location. The pollworker will make effort to insure the privacy of the voter's ballot.

If the AccuVote-TSx is the sole unit in the precinct and the voter is an ADA voter, a paper ballot could also be issued for assisted voting, if requested by the voter, or if the AccuVote-TSx is closed.

If the AVPM is running low on paper, and the message indicating the paper is low is displayed, the poll worker will not allow voters to vote on that AccuVote-TSx until the paper roll and security canister is changed. The poll worker must use a new security canister and paper roll, take the old security canister and place it in the designated election return bag.

If the paper low message appears and it does not appear that the paper is low, the pollworker should verify the message by the opening the printer and if the paper is fine they will need to insert the Supervisor card to resume voting.

If the voter access card is ejected and the message appears that it was inserted upside down or incorrectly – the voter should notify the pollworker – the pollworker will reinsert the card in the TSx to verify and issue the voter a new card if necessary.

If a paper jam or the paper low message appears, and it appears that the paper has been misfed by a poll worker, the poll worker will contact the elections office for assistance. If the jam occurs during voting, the poll worker may be instructed to cancel the ballot and provide the voter with a new voter card. The poll worker may direct the voter to another AccuVote-TSx unit for voting. If the AccuVote-TSx is the sole unit in the precinct and the voter is an ADA voter, a paper ballot will be issued for assisted voting.

At no time will the security canister be opened to resolve a paper jam. It may be necessary to use a new security canister to resolve the paper jam. The poll worker will install the new security canister, take the old security canister and place it in the designated election return bag. At no time should the poll worker break the security seal on the security canister or open the old security canister.

If a paper jam occurs during the printing of the zero report, the security canister may be opened to resolve the paper jam, and then a new security seal would be put in place with the security seal number recorded. The security canister may not be opened if there are official election paper ballot audit trails in the security canister.

For AccuVote optical scan precincts

Some possible problems and their resolution are included below:

NO Ballots - Inspector lost ballots/Car Crash, etc: A poll worker will have reported this problem to the office or hotline troubleshooting desk. The precinct inspector will be informed regarding whether to pick up ballots and where, or whether they are to be delivered to the polling place.

Can't Locate Ballot Box: The hotline troubleshooting desk will encourage the precinct inspector to continue looking for the ballot box. If they can't find it, the hotline troubleshooting desk could look in the jurisdiction warehouse to see who delivered and where they put the ballot box. If there is still no ballot box, the hotline troubleshooting desk will dispatch a ballot box to the precinct. The poll worker will be instructed to have the voters deposit voted ballots in "temporary ballot box" using AccuVote bag, designated container or a ballot transfer bag.

Judge forgets AccuVote: Until the problem is resolved, have the voters will deposit ballots in the side auxiliary bin of the ballot box. If this scenario happens, open the Left Side Auxiliary door (emergency slot) on the side of the ballot box with the keys that you have in the troubleshooter AccuVote bag. Voting can proceed, with voters depositing ballots in the side auxiliary bin, while the Inspector sends to obtain, or an AccuVote arrives at the polling place.

Judge lost AccuVote / Car Crash, etc.: Until the problem is resolved, have the voters deposit the ballots in the left side auxiliary bin of the ballot box. Immediately call the hotline troubleshooting desk and let them know the polling place name needing the AccuVote. Make arrangements to have AccuVote with the memory card delivered in the most expedient manner (meet delivery person half way), or you may need to return to the Elections Office building to get an AccuVote. When you get The AccuVote at the precinct, it will already be in "election mode" and you will simply insert turn the AccuVote on, following opening instructions. Explain to inspector that ballots in the side bin should be processed prior to running the ender card at the end of the day.

Can't Close front door of Ballot Box: Occurs when the small arms in the top door are not lining up with holes on side of ballot box. Try having another pollworker help pull the AccuVote back while trying to lock front door. If this doesn't work, they can operate AccuVote with the front door down, until troubleshooter arrives.

AccuVote won't slide completely into ballot box: It is possible that the ballot box connector is not mating properly with the AccuVote receptacle. This connection is used to run the ballot box diverter arm for sorting ballots. If the pins are bent on the ballot box, straighten them and try again. Sometimes the AccuVote needs to be lifted very slightly while mating with the ballot box pins.

Memory Card reads "OK to Format? " when AccuVote is turned on: Until the problem is resolved, have the voters deposit ballots in the left side auxiliary bin of the ballot box. You can try pulling out the memory card and re-inserting it into the AccuVote, and turn on AccuVote again. Try this approach up to five (5) times. Sometimes the card is OK, but in traveling is loose and making bad connection. **If card still does not work**, call the hotline troubleshooting desk and let them know the polling place name and that they will need to burn a new memory card for the precinct. Make arrangements to have memory card delivered in most expedient manner (meet delivery person half way), or you may need to return to the Elections Office building to get a memory card. When you get the new memory card at precinct, it will already be in "election mode," and you will simply insert it into the AccuVote at the polling location. When you turn on the AccuVote, it will print the zero totals tape. Follow the remainder of opening instructions.

Memory Card reads "Generating Report" but is not printing zero tape: Check to ensure the print ribbon is properly set in the AccuVote. If this doesn't correct the problem, have voters deposit ballots in the left side auxiliary bin of the ballot box. Call the hotline troubleshooting desk and let them know the polling place name.

No Opening / Closing Instructions: The hotline troubleshooting desk can try and walk the inspector through the opening procedures over the phone or have the voters deposit ballots in the left side auxiliary bin until the troubleshooter arrives. When troubleshooter is on-site, give the inspector spare instructions from the troubleshooter bag, and help them open the polling place.

"No Keys" in AccuVote bag: The hotline troubleshooting desk will ask the poll worker to re-check the AccuVote bag, including all pockets in the AccuVote bag. If there is still no key, the hotline troubleshooting desk should instruct the poll workers to use a ballot transfer bag or an AccuVote bag as a temporary ballot box until the troubleshooter arrives. Have the voters continue voting, but deposit the ballots in a temporary bag or designated container..

- **Key doesn't fit locks:** The hotline troubleshooter desk can try and determine whether the inspector has two ballot box keys or two AccuVote keys instead of one of each. If the inspectors have two (keys) that are the same, they can not open the polling place.
- **If two ballot box keys:** Have them open the Emergency / left side auxiliary bin and have the voters deposit the voted ballots here until the troubleshooter arrives. Until the problem is resolved, have voters deposit the ballots in the left side auxiliary bin of the ballot box. The troubleshooter will have to replace the keys when they arrive and then run the opening procedures per instructions. Instruct the inspector to run ballots from the emergency bin at end of day, prior to running the ender cards.
- **Swapped black rubber key identifier:** The hotline troubleshooting desk should also verify that perhaps the black key ring was placed on the wrong key, and they are simply trying the wrong key. If the inspector has one of each key type, it should work. If the inspector can't open poll, then the inspector will have to follow the "No keys" instructions above.

- **If two AccuVote keys:** The inspector can't open polling place with ballot box. See "No Keys" above.

1st Ballot Won't go into AccuVote: Verify that the ballot feed path is clear into the ballot box. The ballot slot may have the key positioned, so the lock arm won't allow the ballots to pass into ballot box. If so, insert the key into lock at ballot feed path and reposition lock arm.

Printer jam: The troubleshooter should explain to the inspector to answer NO to need another copy during the opening instructions, and proceed with voting in a normal fashion. Replace and lock the AccuVote printer cover until the troubleshooter arrives. The troubleshooter will reload the paper and ready it for the closing of the polls. The Audit trail on the memory card will show that the zero totals were run and the time they were run, so all voting will be accomplished normally without further problems.

"Power Failure" flashing: The AccuVote is not getting power and is running off the battery. It will operate approximately 2.0 hours with power. The hotline troubleshooting desk will first check the following:

- Determine whether the AccuVote is plugged into a wall outlet;
- Determine if it is plugged into wall outlet that doesn't work (plug lamp or something into it to test outlet or just move it to another outlet;
- Determine whether the power strip switch is turned to off setting;
- Open the top door on ballot box, and gently slide the AccuVote out far enough to see if power cord is still plugged into AccuVote. If not, push it in firmly and relock front door of ballot box, and continue voting.
- If the AccuVote is still not working, dispatch a troubleshooter. The troubleshooter will figure out the location of the hot outlet, check all connections, or may need to replace the power cord. The troubleshooters will be given a spare power cord with the AccuVote.

"LOW Battery" Message: This message displays that the battery needs charging. Perhaps the on/off switch was turned on somehow during transporting the AccuVote. The hotline troubleshooting desk can tell the p poll worker that the battery should charge up in a few minutes, assuming that there is power getting to the AccuVote. Verify all connections are good. Tell the poll worker to open the emergency / left side auxiliary bin and deposit the voted ballots in the bin for approximately 10 minutes. Recheck the message display on the LCD. The message should be gone at this point and normal ballot processing can resume. Remind the poll workers to run the ballots in side bin prior to running the ender card. Tell the poll worker to call back if problem continues. If the problem continues, contact the hotline troubleshooting desk.

Ballot Jams: The hotline troubleshooting desk will instruct the inspector to have the voters deposit the ballots in the left side auxiliary bin of the ballot box until the problem is resolved. The hotline troubleshooting desk will try and determine if problem is a "returned ballot" or a "counted ballot" (see error message section below).

- **"Returned Ballot Jammed in Reader":** If a ballot has jammed while it was trying to return it to the voter, the inspector should gently pull the ballot out of the AccuVote (if they can access it from the front), or lower the front door of the ballot box, gently pull

the AccuVote out enough to see the jammed ballot from the rear of the AccuVote, gently pull the ballot out, and relock the AccuVote into ballot box. Resubmit the ballot.

- **“Counted Ballot Jammed in Reader”**: If the ballot has jammed while it was trying to drop into the ballot box, the inspector should gently pull the ballot out of the AccuVote (if they can access it from the front), or lower the front door of the ballot box, gently pull the AccuVote out enough to see the jammed ballot from the rear of the AccuVote, and gently pull the ballot out. The ballot should be manually inserted into the ballot box through the normal ballot slot path. Once completed, relock the AccuVote into the ballot box. Unlock the bottom front lock on the ballot box and lift the ballot box lid. Look inside the ballot box (with any witnesses watching) and see if the ballots are caught on the diverter arm, or stack so that ballots can not fall into ballot box correctly. Fix any stuck or piled ballots.
- **If jams are happening often:** The ballot box may have ballots piling up in the ballot path, preventing them from dropping in the ballot box bin. If this scenario happens, the troubleshooter, will unlock the bottom front lock non the ballot box, lift the lid, and determine how best to fix ballots that get caught in diverter arm or stuck.

NO Ender Card: The ender cards have been placed in the AccuVote bag in a pouch on the bottom half of the bag. This pouch is under the AccuVote when they open up the bag. Poll workers may not notice this pouch. If the poll worker does not have an ender card, contact a troubleshooter in the field, or dispatch a troubleshooter to the site.

If it is late to obtain an ender card, instruct the poll worker to take the AccuVote to the designated regional site drop off and explain to the regional personnel that they were unable to complete the closing procedures with the AccuVote. The regional personnel can run an Ender Card and transmit results from the regional site.

The troubleshooter(s) will have Ender Cards, and when he / she arrive, they can assist with the AccuVote closing procedures.

6. Absentee/Mail Ballot Procedures (central tabulation)

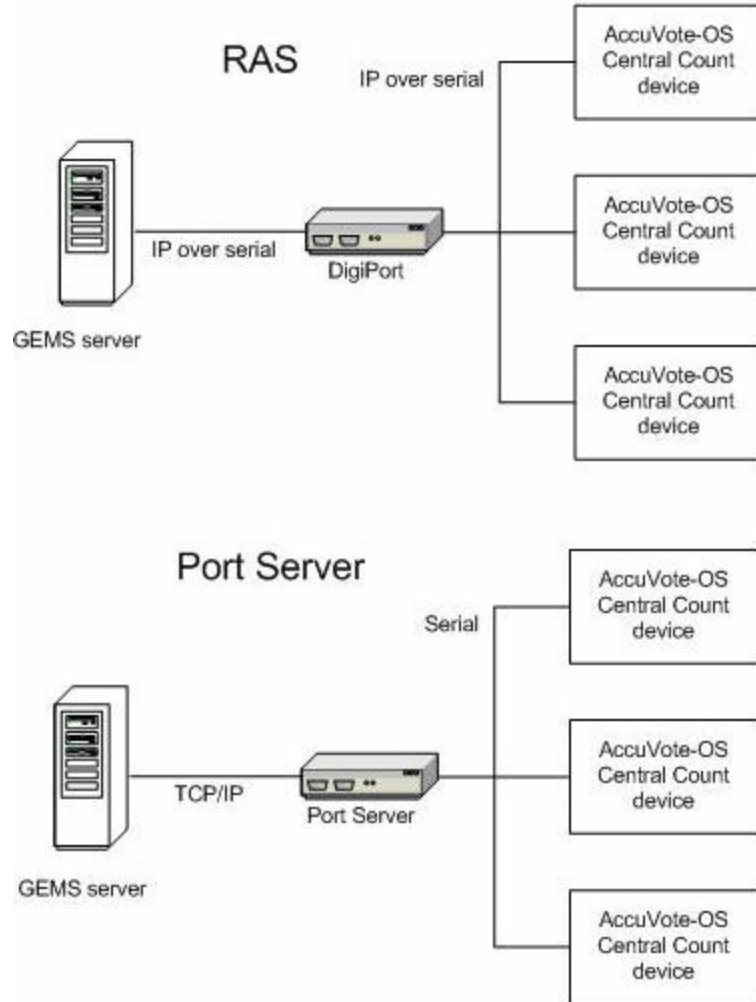
The AccuVote®-OS Central Count is a batch ballot processing solution employing the AccuVote®-OS ballot counting device configured with Central Count firmware, linked over a closed loop, local area network connection to the GEMS election management server.

The AccuVote-OS Central Count is useful for processing large volumes of mail ballots, such as absentee ballots. The AccuVote-OS Central Count mode allows any ballot type to be fed into the AccuVote-OS without any presorting of ballots. All that is required is that the vote center in which ballots are counted is logically associated with all election precincts to the vote center in the GEMS software.

The AccuVote-OS Central Count may be configured with multiple AccuVote-OS Central Count units linked to the GEMS server in either the local area network configuration or using Windows Remote Access Server (RAS). The AccuVote-OS Central Count may be scaled to accommodate the number of units, decks, and deck sizes required, while Ethernet-based local area network transmission between AccuVote-OS Central Count units and the GEMS server assures instantaneous results posting.

The picture below illustrates a sample Central Count setup:

AccuVote-OS Central Count System Configuration



GEMS is used to drive AccuVote-OS Central Count from the Central Count Server console, which provides an automatic and current live ballot count as ballot processing is in progress. All Central Count administrative reporting functionality is offered in real time by GEMS, including deck counts by report precinct, by deck, and by posting time.

The AccuVote-OS Central Count employs all ballot validation logic of the AccuVote-OS, including the validation of control marks, such as the card ID, Diagnostic, and timing marks, card ID/precinct association, precinct/vote center association, white levels, and ballot stock weight. Ballots may be fed into the AccuVote-OS in any one of four orientations – face up, face down, head first, and foot first. Only valid AccuVote-OS ballots will be accepted by the AccuVote-OS, as generated by GEMS, and printed in conformance with Diebold Election Systems' *Ballot Specifications Guide*. Ballots processed in the AccuVote-OS Central Count may equally be processed in AccuVote-OS Central Count, AccuVote-OS Precinct Count.

Every valid ballot type may be tested on the AccuVote-OS Central Count unit using Unvoted, Fully Voted, and Count Tests. No test counts are introduced as a result of the Unvoted and Fully Voted Ballot Tests, and any counts resulting from processing test ballots may be easily reset in the GEMS database prior to Election Day. Please refer to AccuVote-OS Central Count Users Guide Section 5 Ballot Verification for more detail on these tests.

In addition to these ballot tests available in Central Count mode, the AccuVote-OS Central Count firmware also supports Setup and Diagnostics modes. The setup Mode is used to configure the AccuVote-OS Central Count device for central counting, while Diagnostics Mode is used to perform diagnostics tests on the AccuVote-OS device, including verifying its ability to log on to the network, display information on the LCD, test system memory, the AccuVote-OS printer, the main serial port, the auxiliary serial port, and the card reader. Setup and diagnostic modes are detailed in the AccuVote-OS Central Count Users Guide Sections 4 and 9.

6.1. System startup and pre-tabulation report procedures

Detailed start up, running and tabulation procedures may be found in the Central Count Users Guide Sections 2 -7

6.2. Tabulation procedures

Central Count is driven from the GEMS Central Count Server console. This console is divided into three tabs: Machines, Decks and Log.

The Machines tab displays all machines that are currently actively counting ballots in Central Count mode, and includes the deck number, the Central Count AccuVote-OS IP number, the machine status, and the current ballot count in the deck. Only machines are displayed that are actively counting ballots.

The Decks tab displays the numbers of all ballot decks that have been counted, the completion time, and the total deck count.

The Log records all batch start and end transactions, as well as any batch processing error conditions that have arisen.

Disabling the Central Count Server console does not clear any of the decks counted and recorded under the Decks tab. Centrally counted ballot decks may be deleted either by selecting the decks under the Decks tab, and clicking on the Delete button, or by resetting election results. Once the Central Count Server console has been readied, the Start button is disabled, and the Stop button is enabled.

Note that the Central Count Server console is modeless, that is, it may be accessed at the same time as the GEMS main window. The election status cannot be changed as long as the console is active. As ballots are being centrally counted, monitor AccuVote-OS Central Count units to verify that equipment idle time is minimized. Review the Log occasionally, ensuring that any error messages that may arise have been properly accounted for.

Any decks that have been counted in previous Central Count sessions are listed under the Decks tab only once Central Count has been activated for the vote center under the Machines tab.

Careful reconciliation logs should be maintained daily to account for all ballots processed.

6.3. Post tabulation report and shutdown procedures

Reconciliation should occur immediately after shutdown to assure the jurisdiction that the correct number of ballots has been tabulated.

Central Count reports from GEMS in the Administrative reports screen should be used to reconcile deck numbers with actual ballots processed and any discrepancies investigated.

These include:

Central Count Status Report by Deck
Central Count Status report by Time
Central Count Status Report by Race
Central Count Status Report by Report Precinct

7. Semi-Official Canvass Tabulation and Reporting

7.1 System start-up and pre-tabulation reports

The Election Official responsible for the conduct of an election shall assign staff or appoint boards to carry out the following semi-final official canvass functions:

- a. Absent Voter and Provisional Voter Ballot Processing
- b. Seal and Container Inspection
- c. Ballot Processing
- d. Ballot Duplication
 - a. Memory Card control
 - b. Elections Observer Panel
- e. Other boards deemed necessary by the responsible Election Official. Individuals appointed may perform more than one function, or serve on more than one board
- f. Print the following reports from GEMS prior to shutting down and backing up for the evening:
 - a. Election Summary Report
 - b. AccuVote TS status report
 - c. AccuVote OS status report
 - d. Cards Cast report
 - e. TS write in reports

The semi-final official canvass functions listed above must be performed by a minimum of two persons. Each board member shall be appointed to perform the function designated.

All applicable reports should be assembled and be available – procedures should be in place to reconcile precinct returns, Absentee returns, and provisional ballots. Provisional ballots and any absentees from the polls should be prepared for resolution and presentation to the Canvass Board.

The Election Official shall establish procedures to account for all voted ballots, results tapes, security canisters, memory cards during the semi-final official canvass.

The Write in ballots should be validated to those valid write in candidates.

Absent Voter and Provisional Voter Ballot Processing:

Absent voter ballots and provisional voter ballots, returned to polling places on Election Day, are sealed in designated containers by precinct boards for return to the designated counting location. These designated containers shall be removed from the precinct supply kits on election night or the next day if properly secured. The condition of the seals shall be noted and reported as required by the Election Official.

Absent voter and provisional voter ballots received on election night shall be:

- a. Processed on election night in accordance with these Procedures and the Elections Code; or
- b. Maintained in a secure location accessible only to the Election Official under controlled conditions before being processed.

Ballot Duplication

Correcting or duplicating defective ballots shall be done in a clear, unambiguous, and auditable manner such that the voter's mark and intent is preserved and the Election Official's action adheres to the voter's intent. For defective absentee or mail ballots and / or ballots where the voter intent is clear, but the AccuVote cannot read the ballot, the ballot shall be processed according to the following procedures (defective ballots may be duplicated before processing or after rejection by the AccuVotes, or both).

1. When an absentee or mail ballot voter takes corrective action on their ballot and voter intent is clear, the Election Official may use a Post-it Correction & Cover-up tape in lieu of duplicating a complete ballot to cover extraneous marks made by the voter or to allow the Election Official to enhance a mark made by the voter. The Election Official may make a designated unique mark on the tape so long as the tape could be removed and the original mark made by the voter is preserved. The Election Official shall initial next to this correction in an area in which it will not be interpreted as a vote.
2. When an absentee or mail ballot is insufficiently marked and the voter's intent is clear, e.g., ballot ovals filled in with red ink, light pencil or other light marks, then the ballots are to be duplicated or corrected following either or both of these procedures:
 - a) The Election Official may use a Post-it Correction & Cover-up tape lieu of duplicating a complete ballot to cover marks made by the voter or to allow the Election Official to enhance a mark made by the voter. The Election Official may make a designated unique mark on the tape so long as the tape could be removed and the original mark made by the voter is preserved. This unique mark or enhancement shall take the form of a slash mark on the tape covering the original oval the voter has indicated. The Election Official may make the mark so that it is sufficiently different in color and style and cannot be mistaken as the voter's original mark. The Election Official shall initial to this mark in an area in which it shall not be interpreted as a vote.
 - b) The Election Official may use a colored translucent marker (such as a highlighter) that will not obscure, obliterate, or otherwise destroy the voter's original mark but will create a mark that is readable by the AccuVote. The Election Official shall initial next to this mark in an area in which it shall not be interpreted as a vote.

Duplicating defective ballots.

Deliver defective voted ballots to the appropriate location for processing. All ballots prepared as duplicates of defective voted ballots shall be of a distinctive color, or be identifiable by other distinguishing means, clearly labeled "duplicate," and shall be given a serial number which shall also be recorded on the damaged ballot.

In creating the duplicate ballot, one board member shall duplicate voting positions marked on the original/damaged ballot, and shall enter a facsimile of the write-in vote(s), if any. Efforts need not, and should not, be made to match the handwriting characteristics of the voter when entering these write-in facsimiles. Particular attention must be paid to completing or not completing the ovals opposite the write-in spaces as the voter has done, or failed to do. Another member shall verify that the voting position marks and write-in entries (including oval completions or lack thereof) on the duplicate ballot match those in the damaged ballot.

Duplicates shall be placed with voted ballots of the appropriate precinct for further processing, tallying, and storage. The original ballot, which has been duplicated, shall

be distinctively voided, placed in clearly identified containers for duplicated ballots, and segregated in a secure location so they cannot be counted inadvertently.

7.2 Processing vote reports

7.2.1 Central tabulation

All Central Count reconciliation logs and central count logs should be assembled and compared for accuracy. Errors and deficiencies should be investigated and resolved.

7.2.2 Precinct tabulation

Poll book signatures and ballots cast reports should be compared for any discrepancy. Results tapes and results reports should be compared for accuracy. Errors and deficiencies should be investigated and resolved.

7.2.3 Integration with county systems and Calvoter

Unofficial results should be transmitted and verified with the reports from GEMS and the results tapes returned from the polls. Appropriate information should be transmitted to the appropriate systems *e.g., voter history, unofficial vote totals to CalVoter.

Secretary of State template files should be linked to export results to Cal Voter. Optionally, vote totals may be manually entered directly into the CalVoter system by a designated official. Instructions to link the files are attached in the appendix.

8. Official Canvass and Post-Election Procedures

In order to assure the privacy of the provisional voters, the County should establish procedures that assure the separation of duties between those who canvass the returns and those who work the polls.

The Official Canvass consists of a post-election audit of the several voting 'precincts' returns and the absent voter ballot returns:

- To validate the outcome of the election by verifying that there were not more ballots cast than the sum of the numbers of voters who signed the precinct Roster / Index, and who applied for and were issued absent voter ballots;
- To account for all official ballots produced for the election; to ensure that all required certificates and oaths were properly executed by the precinct board;
- To verify the accuracy of the computer count by manually recounting the voted ballots from at least one percent of the voting precincts and comparing the manually-tallied results to the computer-generated results;
- To process any provisional ballots;
- To Process any valid write in votes;
- Resolve any ballot exceptions; and
- Certify the Election results.

8.1. Election Observer Panel

All procedures prescribed in this Manual shall be carried out in full view of the public insofar as feasible. In addition, the responsible elections official shall devise a plan, subject to the approval of the Voting Systems Panel, whereby all critical procedures of the vote tallying process described in this Manual are open to observation by an Election Observer Panel. Representatives of the qualified political parties and representatives of the news media shall be among those invited to serve on this Panel and shall be given the opportunity to observe that the correct procedures have been followed in the receiving, processing, and tallying of all the voted ballots. The Election Official shall appoint an Election Observer Panel; failure of any or all invited parties to participate on the Panel shall not stop procedures from continuing as otherwise required by law.

8.2. Canvassing precinct returns

Processing shall not be done by poll workers but by those appointed by the County Elections Official.

To Process provisional ballots returned by each precinct:

- Verify eligibility of persons who cast ballots provisionally according to the Guidelines for Processing Provisional / "Fail-Safe" Ballots in an Election, as provided by the Secretary of State;
- Open envelopes of eligible voters and remove ballots;

- Examine ballots for write-in votes, noting cause for rejection and damage;
- Identify original or duplicate provisional ballots by precinct and deliver to the designated official for updating computer tallies;
- Write the reason for rejection on envelopes of ineligible voters. Place unopened envelopes with election materials to be retained for the period prescribed by law;
- Examine the Ballot Statement prepared by each precinct board;
- Compare the number of official ballots reported “received” by each precinct to the number issued by the elections official. Resolve or explain any discrepancy; and

Verify that the number of ballots voted (including those voted provisionally), plus spoiled and unused ballot cards, equals the number received by the precinct. Resolve or explain any discrepancy.

Reconcile tallies

- Compare the number of signatures in the Roster-Index to the number of precinct voter ballots reported on the Ballot Statement. Resolve or explain any difference between the two.
- Compare the number of ballots voted by provisional and precinct voters to the Summary reports and/or results tapes. Resolve or explain any discrepancy.
- Locate any ballots not counted on election night because of damage, invalid identification marks, improper orientation, or any other reason.
- Search election supplies and equipment, including unused and spoiled ballots, write-in envelopes, ballot containers, etc., for ballots not accounted for.

8.3. Canvassing Absentee returns

The elections official is accountable for absentee ballots to the same extent, as nearly as practicable, as for precinct ballots. The duties include:

- Prepare a Ballot Statement for each ballot type or special absent voter “precinct” showing the number of ballots produced (received), any defective ballots received from the vendor, spoiled or damaged ballots, the number of returned ballots that were challenged, and the number to be counted.
- Reconcile the statement to demonstrate that the total of unused, defective, spoiled, issued, and replaced ballots equals the number received. Resolve or explain any discrepancy.
- Compare the computer count to the number of ballots to be counted, as shown on the Ballot Statement. Resolve or explain any discrepancy

8.4. Canvassing provisional ballots

Process provisional ballots returned by each precinct.

- Verify eligibility of persons who cast ballots provisionally according to the Guidelines for Processing Provisional/"Fail-Safe" Ballots in an Election, as provided by the Secretary of State;

- All DRE provisionals that require further investigation should be printed from GEMS and attached to the appropriate envelope to be processed according to established State Law and County procedure. All valid DRE provisionals shall be accepted in GEMS and the tallies updated.
- For Paper provisionals -Open envelopes of eligible voters and remove ballots;
- Examine ballots for write-in votes, noting cause for rejection and damage;
- Identify original or duplicate provisional ballots by precinct and deliver to the designated official for updating computer tallies whether those are paper provisionals; and
- Write the reason for rejection on envelopes of ineligible voters. Place unopened envelopes with election materials to be retained for the period prescribed by law.

8.5. Canvassing write-in votes

All ballots containing write-in votes must be examined by the Write-In Processing Board. Valid write-in votes shall be tallied manually.

For Paper ballots

Examine the voting positions on the ballot for the office where the write-in vote occurs. The AccuVote tabulator will have scanned each ballot and determined the Ballot Path for that ballot. If the write-in vote created an overvote condition, the ballot would have returned to the voter/operator for action. If the voter has marked the name on the regular ballot and written it in, the election official shall ensure that the vote is tabulated one time only. If the name is written in only and is not marked on the candidate list, the election official may determine the voter's intent to select the candidate.

- a. To be considered as a write-in vote, the oval next to the write-in space must be marked (EC 15342).
- b. If the name written in is not on the Certified List of Write-in Candidates, the write in shall not be counted.
- c. If the write-in vote is for a qualified candidate in the precinct and does not constitute an overvote, the write-in vote is manually tallied.

For DRE Ballots

GEMS will indicate the number of votes cast for each write-in position, for each contest. GEMS has AccuVote-TSx write-in reports that will also contain the actual write-in candidate's name cast by the voter as recorded on the AccuVote-TSx units. Immediately after results are uploaded for TSx units – the GEMS database shall be backed up with the established naming convention. This will also be done prior to closing down the server at the end of the evening.

Prior to any reconciliation of qualified write-ins – TSx ballot images shall be printed from the GEMS server to preserve them.

The local officials will tally and record the write-in votes cast for write-in candidates from this report. In tallying the write-in votes in a contest designated as a "Vote for Two" or more, the

election official may encounter a name written in that is the name of a ballot qualified candidate. In this instance, the election official shall check the ballot image report to determine whether the ballot qualified name written in is also marked on the list of candidates.

The reporting of write-in votes as part of the official returns shall be required by law or by directive of the Secretary of State, or both.

8.6. 1% Manual recount procedures

For the purpose of validating the accuracy of the computer count, within fifteen days after every election at which the AccuVote-TSx system is used, a public manual tally of the ballots cast in at least one percent of the precincts, chosen at random, shall be conducted as to all candidates and ballot measures voted on in each of the precincts. If the random selection of precincts results in an office or ballot measure not being manually recounted, as many additional precincts as necessary shall be selected and manually recounted to cover any office or ballot measure not recounted in the original sample. (EC 15360)

Precincts selected at random pursuant to Election Code section 15627 as amended for the 1% manual recount shall not be revealed to the persons responsible for programming the electronic ballot until the semi-official canvass is complete. For the one percent manual tally, the AVPM paper audit trail and ballots shall be tabulated by hand using County established procedures.

8.7. Handling ballot exceptions

Precinct and/or absentee ballots may contain writing or marks that could identify the voter. These ballots must be examined by the Elections Official.

If the marks WOULD IDENTIFY the voter, the ballot should be rejected and placed it in the designated container. Names, addresses, and initials are considered identifying marks.

If the marks WOULD NOT IDENTIFY the voter, process the ballot along with all other valid ballots.

The following specific standards shall be used in determining if one or more marks on an AccuVote ballot are to be included in the count.

Marked Voting Position Oval

A vote shall be considered valid and included in the count when the marked voting position oval is completely filled in.

Other Marked Ballots

A vote shall be considered valid and included in the count when the voter has marked the ballot in a clear and understandable manner such that a pattern or patterns are discernable.

Table B also lists instances when a voted ballot may or may not be counted.

TABLE B

| <i>SHALL BE COUNTED</i> | <i>SHALL NOT BE COUNTED</i> |
|--------------------------------|------------------------------------|
|--------------------------------|------------------------------------|

| SHALL BE COUNTED | SHALL NOT BE COUNTED |
|---|---|
| B.1. When the voter, instead of completely filling in the voting position oval, clearly and consistently indicates voting choices by placing a mark, such as an "X" or a "V" or circling the candidate's name or voting position oval or uses a combination of marks such that a pattern or patterns identify the voter's intent, the votes shall be counted. | B.8. If a voter places marks on a ballot which identify the voter, the ballot shall not be counted. Initials by a mark correcting a vote do not by themselves identify the voter. |
| B.2. When the voter, instead of completely filling in the voting position oval on the official ballot, clearly and consistently indicates voting choices by placing a mark, such as an "X" or a "V" or circling the candidate's name or voting position oval or uses a combination of marks such that a pattern or patterns identify the voter's intent on the sample ballot rather than on an official ballot, and mails the sample ballot in the absentee envelope, the ballot shall be duplicated and counted. | B.9. If a voter transmits his or her voted ballot by facsimile, without an original signature, the ballot shall not be counted. |
| B.3. When the voter indicates voting choices by writing the name(s) of the candidate(s) or indicating the vote(s) on a proposition(s) in a letter or note, and returns it in an absentee envelope, the ballot shall be duplicated and counted. | |
| B.4. If the voter writes correcting instructions anywhere on the ballot card, or on a note accompanying the card, and the note does not identify the voter, the ballot shall be counted. | |
| B.5. If the voter marks a vote selection, but attempts to erase or otherwise correct this voting choice, and clearly makes another voting choice, this vote shall be counted. | |
| B.6. If a voter uses the write-in portion of the ballot to indicate a voting choice for a candidate or measure that is listed on the ballot, the vote shall be counted. | |
| B.7. If the voter uses the write-in portion of the ballot to indicate a voting choice for a candidate listed on the ballot, and also marks the designated voting position oval for the same candidate, the ballot shall be counted as one vote for that candidate. | |

8.8. Post election logic and accuracy testing

A Post-Election Logic and Accuracy Test similar to the Pre-Election Logic and Accuracy Test may be performed following election close at the County's discretion.

Post-Election Logic and Accuracy Test procedure, in the GEMS Election Administrator's Guide Section 9.12 provides a suggested template for the Post-Election Logic and Accuracy Test using both the AccuVote-OS and AccuVote-TSx.

8.9. Final reporting of official canvass

The official canvass consists of a post-election audit of the polling place returns and the absent voters returns and serves to;

- Validate the outcome of the election by verifying that there were not more ballots cast than the sum of the numbers of voters who signed the precinct Roster/Index and who applied for and were issued absent voter ballots;
- Ensure that all required certificates and oaths were properly executed by the precinct board; and,
- Verify the accuracy of the computer count by manually recounting the voter ballots from at least one percent of the voting precincts and comparing the manually-tallied results to the computer-generated results and the paper audit trails.
- Final results shall be verified and delivered to the Secretary of State in the manner prescribed by law.

8.10. Backup and Retention of election material

Upon the certification of the election results, Elections Code sections 17300 through 17506 apply to the handling, security and disposition of unused ballot cards and other elections materials. The retention period for ballots and related election materials is six months for all elections if no federal elections are involved. The federal election retention period is twenty-two months. Retention periods may be extended in the event of a court challenge.

All ballot tabulation operations including mandated pre-and post-election testing, must be documented in sequential order. An automated and/or manual record or log must be maintained to record the time and date of "system events" related to ballot counting. All associated election materials must be retained for the period prescribed by law. Copies of the election database should be date and time stamped and preserved as well. They may be in the form of cd or other media.

System events in the ballot tabulation process include:

- Initiation of the ballot count program
- Clearing totals
- Running logic and accuracy tests
- Hardware Failures
- Repairing hardware (including running accuracy tests after repairs are completed)
- System crashes and restarts
- Communications between multiple systems
- Lost communication to remote sites
- Time communication is restarted

The GEMS Audit log shall be continued until final certification of results, shall be printed and retained for this same time period as ballots for that election, and shall be subject to the same physical security and integrity measures.

Specific audit trails shall include:

- Exception Handling/Error Messages During Ballot Tabulation, such as;

- AC offline
- System status messages, such as:
 - Polling Place Open and Close

9. Manual Recount procedures

A request for a recount and the conduct of the recount shall be made in accordance with Elections Code section 15600 with the following:

Public Observation

The recount shall be conducted publicly.

Appointment of Spokesperson

Upon request, the elections official shall determine the candidates and or campaigns or others that are parties of interest in the recount, and each party of interest shall appoint a spokesperson who shall act as a contact person between the election official and the party of interest. The spokesperson shall be authorized by the party of interest to make final decisions on behalf of the candidate or campaign. The spokesperson shall have access to all parts of the recount area when accompanied by an Election Official. The spokesperson may appoint other persons to observe the recount process, the number and activities of such persons depending on procedures established by the Elections Official.

Order of Precincts

The person requesting the recount may specify the order of precincts to be counted, and may specify whether the recount begins with precinct ballots, absentee ballots, provisional ballots, or other types of ballots. In the absence of such a request, the elections official shall determine the order in which precincts are counted. Any change to the order must be requested in writing by the candidate or campaign, or the designated spokesperson.

Ballot Security

The elections official shall provide for the security of ballots during the recount process. The costs for any security measures in addition to those determined necessary by the elections official that are requested by the voter requesting the recount and that are approved by the elections official shall be added to the cost of the recount.

Cost of Recount, Daily Deposit

The voter filing the request seeking the recount shall, before the recount is commenced, deposit with the elections official a sum as required by the elections official to cover the cost of the first day of the recount. For subsequent days, no later than 3:00 pm the day before each day's recount, the requestor shall pay to the elections official a sum sufficient for the next day's recount, as determined by the Election Official. If the advance deposits are not paid, the Election Official will terminate the recount.

Examination of Ballots and Other Materials

Any research, review, or handling of relevant election material, as defined in Elections Code section 15630, shall be done at the discretion of the Election Official. Requests to research, review, or handle relevant materials must be in writing and must be received by the elections official before the recounting of ballots is complete. The requestor shall pay all additional costs to complete the research or review. One or more representatives of each party of interest, as determined by the elections official, may be present for any research or review of relevant materials conducted under this section.

Interference with the Recount Process

No person appointed as an observer may interfere with the recount process. All questions must be directed through the designated spokesperson directly to the elections official or his or her designee. No questions or remarks of any kind may be directed to any member of the recount board. No observer may touch or handle ballots.

Procedure to Challenge Ballots

Ballots may be challenged according to the provisions of Elections Code section 15631. The elections official shall, prior to the recount, establish a procedure for review and resolution of challenges. This procedure shall include, but is not limited to, notice to all interested parties of the rules, regulations, and procedures that will be used to resolve challenges.

10. Security

10.1. Physical security of system and components

The elections official shall ensure the protection of the election tally process from intentional manipulation, fraudulent manipulation, fraudulent and intentional manipulation, malicious mischief, accidents, and errors. Each Jurisdiction shall:

Procedures: System Changes — Establish procedures to identify changes to the ballot tallying system. These procedures must also include a check list and sign-off requirement for the system proofing tasks.

Procedures: Physical Protection — Establish procedures for the physical protection of facilities, and data and communications access controls as appropriate for the facility and equipment. The procedures shall also include provisions for locked facilities for computers as well as for voted and non-voted ballots and counted and uncounted ballots.

Contingency Plan — Establish contingency plans for ballot counting, including either backup ballot counting facilities under the elections official's supervision, or a reciprocal agreement with a neighboring AccuVote jurisdiction to count ballots in the event of hardware failure. In addition to the ballot counting program sent to the Secretary of State, each elections official should store another copy of the ballot counting program in an off-site secure-but-readily-accessible location.

Procedures: Internal Security — Establish procedures for internal security, i.e., the protection of ballot counting hardware, firmware, and software from fraudulent manipulation by persons within the elections office. These procedures must provide for:

- Restricted access to ballot counting hardware, firmware, and software;
- Individual passwords which must be complex and frequently changed; and
- Physical protection of all non-voted precinct and absent voter ballots, as well as of all tallied and non-tallied ballots, by use of logs to chronicle their quantity, use, and access before and after the election.

A copy of each County elections official's security procedures should be on file in the office of the election official.

Certification of Unescorted Personnel. All unescorted persons present within the security area, including visitors, media representatives, and standby personnel, shall be clearly identified by a badge or other means and a log of their arrival and departure times. All unescorted personnel shall be subject to restrictions established by the responsible elections official to ensure the efficiency and integrity of the vote tallying process.

Election Security Plan

Security of GEMS server

- Election Officials shall maintain the GEMS Server is in a controlled, preferably locked area with access limited to authorized staff.
- Election Officials shall verify and submit a statement to the Secretary of State that no DAO capable program has been installed or resides on GEMS server. DAO

programs include but are not limited to MS EXCEL, MS ACCESS, and other Visual Basic programs designed to work with Direct Access Objects.

- The GEMS server shall be set to require user login. Administrative user logins should be limited to only those times user accounts need to be set or changed or software needs to be installed or updated. For routine use, a lesser user account should be used. An administrative user should also be issued an additional, separate user account for routine use if their duties require routine election use.
- A minimum of two people in the county election office shall have administrative access to the server supporting GEMS (the ability to set or change passwords). Additional user accounts may be assigned at less than administrative access but all users shall have and use separate user account with unique usernames and passwords. The administrative users' passwords shall meet or exceed Microsoft Windows password guidelines for a strong password. Lesser user accounts should be at least as strong as the GEMS passwords. The second administrative user may be setup and the username / password stored in a sealed envelope placed in a safe as part of a disaster recovery plan but should not be used for routine use.
- All network connections, including the GEMS network, should be local.
- The GEMS server computer and communications systems must be used for election purposes only.
- Workers must not install third-party software in the GEMS server system that is not previously approved for use by authorized personnel. This prohibition is necessary because such software may contain viruses, worms, Trojan horses, and other software that may damage GEMS information and systems.
- Whenever software and / or files are received from any external entity, this material must be tested for unauthorized software on a standalone, non-production machine before it is used on the GEMS server system. If a virus, worm, or Trojan horse is present, the damage will be restricted to the involved machine.
- Approved virus checking programs must be continuously enabled on computers supporting the GEMS server system. Diebold recommends McAfee virus scan.
- Externally supplied floppy disks, CDs or DVD's may not be used on any GEMS server unless these disks have first been checked for viruses and deemed to be free of such viruses.
- If modem transmission is to be used to upload unofficial vote center election results, the modems attached to the GEMS server should only be enabled when the transmission of unofficial results are expected. Before the transmission of results by modem, a back up of the GEMS election database shall be made and the back up stored in a protected location. Before loading official results, the back up shall be restored and used for the official results.
- If unofficial summary results from the GEMS server are to be distributed or published, the information should be exported from GEMS to a file on the server and

then copied to a virus-free floppy disk. That floppy disk can then be taken to a separate computer system that has external connections to the Internet. A separate blank floppy disk should be used each time the information is copied to the floppy disk.

- Back-ups of GEMS databases should be performed using CD-ROMs. Users must ensure that the back-up is labeled with the time and date of the back-up and signed by the person who authorized and performed the back-up.
- No voting terminal or other component of the voting system will have wireless technology installed or have any ability to allow the transmission of vote results through wireless technology.
- An anti-virus program shall be installed. The virus program shall be updated and a virus scan run immediately prior to each election.
- The boot option shall be set to hard drive only with the BIOS secured by a password. The password shall follow the manufactures recommendations for a secure password.

Security of AccuVote-TSx units

- All AccuVote-TS units shall be upgraded to use software that requires SSL/TLS standards and be documented as such. The SSL/TLS option shall always be activated.
- New encryption keys using the Key Card Tool shall be created and used for Smart Cards and AccuVote-TSx units for each election; these will be stored in a secure location with limited access by county election staff.
- Security keys shall be verified and logged as they are changed.
- No PIN shall use only the digits "0" and "1".
- Supervisor Card PINS shall be changed for each election and stored in a secure location.
- AccuVote-TSx PINS shall be changed for each election and stored in a secure location.
- Tamper-proof seals should be installed on key locks of access panels of the AccuVote-TSx units and initialed so any incidence of disturbance shall be immediately obvious and rectified. Logs shall be kept to record the date, time and identification number of all seals and all incidences.
 - Tamper-proof seals shall be placed over the memory card door after the memory card installation is complete in the same manner as the key locks above.

- Tamper-proof seals shall be placed over the communication media door in the same manner as the key locks above.

Security of AccuVote-OS units

- Tamper-proof seals shall be placed over the memory card door after the memory card is installed
- Numbered seals are placed and recorded on the memory card door
- Seal logs are kept that list seal numbers, vote centers, and AVOS serial numbers
- Replacement seals are logged and verified
- AccuVote OS units sealed in their carrying cases are brought to the polls by the Inspectors election morning
- Ender cards and official ballots are in sealed containers and delivered to the Inspectors

10.2. Logical security of system and components

10.2.1. Essential and non-essential services and ports

- All network services and network ports are to be turned off, except those explicitly required to run the GEMS software;
- the “auto run” feature in Windows is to be disabled;
- the boot order is to boot from the hard drive first; and
- the BIOS is to be password protected to prevent changes to the boot order; and
- The specifics for understanding and implementing these items can be obtained from your Diebold representative.

10.2.2. User-level security

GEMS Passwords

A minimum of two people in the county election office shall have usernames and passwords with administrative access to the GEMS election database. (These may be different than the server administrators and are specific to the election.) The GEMS passwords must be at least 6 to 8 digits and include a combination of alpha and numeric characters.

Passwords shall be changed before each election. Each user should immediately change the password, if the password is suspected of being disclosed, or is known to have been disclosed, to an unauthorized party.

Users are responsible for all activities performed with their personal login-IDs. Login-IDs may not be utilized by anyone but the individuals to whom the log-ons have been issued. Users must not allow others to perform any activity with their login-IDs.

The GEMS server, workstation, or terminal must not be left unattended without first logging-out or invoking a password-protected screen saver.

10.2.3. Anti-virus protection

An anti-virus program shall be installed. Diebold recommends McAfee virus scan. The virus program shall be updated and a virus scan run immediately prior to each election. The current and updated dat files should be downloaded on another system, virus checked and then installed and verified.

10.2.4. Procedures for verifying, checking, and installing essential updates and changes

Software to be loaded to the server should be virus scanned and also verified to come from an authorized source. In most cases, it is the Secretary of State . Once verified, the software should be installed and retested to verify it is correctly functioning.

10.2.4.1. Audit records for the changes showing what, when, who, and why

A log and a snapshot of the server should be kept to track what is on the server and what is installed by whom and when. This should be done by a minimum of 2 people and the log signed by each individual.

10.2.4.2. Installation procedures for those updates, which would normally be installed using an internet connection

Updates should be received via cd through the mail or downloaded on a secure system and then virus scanned and transferred to the GEMS server once validated.

Software to be loaded to the server should be virus scanned and also verified to come from an authorized source- most cases it is the Secretary of State . Once verified, the software should be installed and retested to verify it is correctly functioning.

10.2.4.3 Acceptance testing after the installation.

Verify that all of the expected functionality of the GEMS workstation is available. Mark each function in the accompanying signoff sheet, once it has been verified. The following functions are to be verified:

1. Copy from CD
2. Restore database
3. GEMS version
4. Reports version
5. View card in Card Editor
6. Print ballot artwork
7. Print administrative reports
8. Record/play back audio
9. Download memory card
10. Upload memory card
11. Print results report
12. Perform a backup
13. View GEMS User's Guide

14. Verify GEMS "Read Me" file
15. JResult Client version

10.3. Security procedures for central processing

Ballots processed at the central location shall be secured from tampering, theft and damage in the same way that official ballots are secured.

Appropriate physical, technical and administrative processes and procedures shall be in place to ensure security of the central processing system.

Units utilized for early voting shall be secured at the end of each day and logs shall be kept.

Election material used on a daily basis ie., voter access cards, VCprogrammer, TSx units, Supervisor and Administrator cards, official ballots shall also be secured when not in use.

The server shall be secured and locked when not in use and only used by authorized personnel.

Security of Votes

Tampering, Theft, Alteration — The elections official shall ensure the security of all votes cast from tampering, theft, or alteration, and shall ensure that the results of votes counted exactly reflects the number of voters and their exact vote choices.

Voting on Multiple Days — If early voting takes place on more than one day, the elections official shall establish procedures to reconcile each day's voting activity and to ensure that votes and other activities have been recorded and securely stored. The number of votes cast each day shall be compared to the number of voters who appeared requesting to vote and who were authorized to vote, as determined by the roster, or by other means.

Voted Ballots Returned to Elections Office — Voted ballots from each day's voting shall be returned to the elections office, and an audit trail produced and preserved documenting the results from each day's voting.

Storage at Election Warehouse

If the memory media is to be installed in the voting terminals prior to distribution to the vote centers, the voting terminals should be kept in a secure location after the memory media installation. The location should restrict access to only authorized personnel. Logs shall be kept to track the memory installation and access after the memory is installed.

Secure Storage — Voting devices shall be securely stored when not in use.

Ballot Tally Software — Ballot tally software for early voting shall be escrowed according to Chapter 6 of Division 7 of the California Code of Regulations.

10.4. Security procedures for polling place

Storage at Vote Center

After distribution of the AccuVote OS and TSx units to the vote centers, the units should be kept in a secure location at the vote centers. The location should restrict access to only authorized personnel. If possible, tamper-evident seals and other security mechanisms

should be placed on entries into the secure location.

AccuVote-OS and TSx units shall be inventoried, seals verified and any discrepancies noted and rectified prior to opening and setup on Election Day.

Election supplies, ie, rosters, official ballots, signs, shall be kept in the possession of the designated election official and verified and inventoried according to established procedures.

10.5. Audit trails

All system audit logs for software and hardware should be retained as part of the official elections record. The Logic and Accuracy test results as well as maintenance and repair logs should also be maintained.

Section 12.6 of the GEMS User Guide details printing the audit logs for the GEMS software.

Section 4.10 of the Ballot Station User Guide details printing the audit logs from the TSx.

Section 13 of the AccuVote-OS Precinct Count User guide details printing the audit logs from the AccuVote-OS

List of reference / User manuals

AccuFeed_1.0_Hardware_Guide.
AccuView_Printer_Module_Hardware_Guide
AccuVote-OS_Central_Count_2.00_Users_Guide
AccuVote-TSx_Hardware_Guide
AccuVote-TSX_Pollworkers_Guide
AVPM_Service_Guide_Revision
AVPM_Single_Roll_Opening_and_Closing_Procedures.
GEMS_1.18_Election_Administrators_Guide
GEMS_1.18_Product_Overview_Guide
GEMS_1.18_Reference_Guide
GEMS_1.18_System_Administrators_Guide
GEMS_1.18_Users_Guide.
Key_Card_Tool_4.6_Users_Guide
VCProgrammer_4.6_Users_Guide
Voter_Card_Encoder_Users_Guide.
Ballot_Station_4.6_Users_Guide.
AccuVote-OS_Precinct_Count_1.96_Users_Guide_
AccuVote-OS_Pollworkers_Guide